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This Issue in Brief

Injuries in manufacture of lumber products in 1941.

The productive capacity of 1 in every 18 employees in lumber-products manufacture was reduced by disabling industrial injuries in 1941. The injury-frequency rate was 22 percent higher than in 1940 in furniture-manufacturing plants, 16 percent higher in plants manufacturing wooden containers, and 24 percent higher in plants making miscellaneous lumber products. This record indicates the need of stringent safety measures to prevent accidents in this undeniably hazardous industry. Page 960.

Earnings in manufacture of internal-combustion engines.

In the spring of 1942 workers in plants manufacturing internal-combustion engines had average hourly earnings (exclusive of extra payments for overtime) of 83.9 cents. This was an increase of 14.2 cents per hour as compared with August 1939. During the 3-year period working hours increased from 36.6 to 49.7 per week. Page 1042.

Wartime changes in consumer goods.

Wartime conditions have been responsible for sweeping changes in the character of consumer goods available to purchasers in the United States. These include changes in styling, quality of materials and workmanship, and availability of supplies. The article on page 891 discusses these changes and the conditions that gave rise to them.

Indirect price changes.

The consumer is well aware of direct price increases in the goods he purchases. Not so evident are the indirect changes which result in hidden price increases and which are greatly accelerated in wartime. Among these increases are such factors as imposition of "extra" charges for service or quality, deterioration in quality of materials, reduction in size of articles, withdrawal of free delivery, "concessions," discounts, etc. All of these and the reasons for them are discussed in the article on page 903.

Earnings in manufacture of pressure gauges.

Earnings of first-shift workers in establishments making pressure gauges averaged 76.8 cents per hour in August 1942. In the various occupational groups the averages ranged from 53.5 cents (laborers and general-utility workers) to $1.193 (first-class machinists). Page 1021.

Employment of factory workers, by sex.

During the year ending in April 1942 the number of factory workers increased by 1½ million, or 14.6 percent, as shown by data collected by the Bureau of Labor Statistics. By far the larger part of this increase was accounted for by increases in the number of male wage earners, whose employment rose by 1,254,000 (15.9 percent). Although the number of women employed in factories increased by 233,000, their percentage in the total labor force actually decreased. About 40 percent of the increase in woman workers was the result of accessions in the textile, food, and chemicals and petroleum industries. Page 913.

Labor supply for west coast shipyards and aircraft-parts plants.

Nearby nonmanufacturing industries furnished the greater part of the new employees hired during June 1942 by west coast ship-construction yards and plants manufacturing aircraft parts. A study by the Bureau of Labor Statistics indicates

that establishments in wholesale and retail trade were the source of supply of the largest proportion of these recruits from the nonmanufacturing industries. Nearly 5 percent came from various agencies of the Federal Government. Four of every five new workers came from within the same State. Page 926.

Professional workers in contract construction.

A definite increase in the demand for professional and technical workers has resulted from the wartime industrial expansion in the construction industry. A study of employment in 190 contracting firms indicates that in July 1942 their professional staff formed 5.5 percent of the total employed. Although the number of professional employees does not expand so rapidly as that of nonprofessional workers in times of increased industrial activities, neither does it decrease so rapidly when curtailment of force takes place. Page 932.

Earnings and hours in manufacture of pocket cutlery.

Plants making pocket cutlery paid their employees an average of 54.9 cents per hour in July 1942. This was approximately 13 cents more per hour than in August 1939. Because of higher hourly rates and longer weekly hours, male employees had gross average weekly earnings of $30.23, as compared with $19.03 for women. Page 1015.

MONTHLY LABOR REVIEW

FOR NOVEMBER 1942

WARTIME CHANGES IN CONSUMER GOODS IN AMERICAN MARKETS

By Laura Brown Webb, *Bureau of Labor Statistics*

EVER since the outbreak of war in Europe in August 1939 the character of consumer goods appearing on domestic markets has been progressively modified in response to the continuous and rapid changes in prices and supplies of raw materials. When prices of raw materials are rising rapidly, as in the 2 years immediately following the invasion of Poland, modifications are always made in the styling and in the quality of materials and workmanship of consumer goods. In such a period manufacturers attempt to economize in order to avoid drastic advances in prices, with consequent consumer resistance. When, to changes such as these, there is added the shift from a peacetime to a wartime economy, with its attendant Government regulation of the use of scarce materials, manufacturing facilities, and manpower, a virtual revolution in consumer-goods markets is inevitable. The past months have seen the beginning of such a revolution. The directions which these changes will take, in view of the Government regulations to conserve materials as well as to regulate prices, are gradually becoming apparent. Lowering of the quality of certain goods is clearly necessary, as in the case of woolens for civilians, and official regulations already issued indicate that this will be encouraged in some cases. On the other hand, deliberate depreciation of quality as a device to effect hidden price advances is prohibited by the General Maximum Price Regulation.

More important than changes in quality, such as the use of poorer materials or workmanship, are changes in the nature of consumer goods, as the use of scarce materials for civilian production which has been progressively forbidden by the War Production Board and other regulatory agencies. The production of many durable goods requiring the use of large amounts of metals has been prohibited and substantial changes have been ordered in the construction of others. Still more important for the future, but not yet fully evident because retailers' shelves were well stocked in 1942, are the growing scarcity and the ultimate disappearance of certain kinds of goods.

Government regulations have also extended to textile fabrics, both because of the import situation and the need for the diversion of much of the weaving capacity to military needs. Raw-silk stocks in the United States were frozen for military use following the rupture of commercial relations with Japan in July 1941; civilian manufacturers

were permitted to use only those stocks which had been partly processed or "thrown." In order to conserve the available supply, the Government further recommended that only one-half of the thrown silk be used in making all-silk hose and that the remaining 50 percent be used in combination with other fibers. The same recommendation was made concerning the use of nylon yarns, but later nylon, too, was limited largely to military use. The Government then ordered rayon manufacturers to set aside a specified percentage of production each month for hosiery manufacturers.

Interference with the importation of wool from Australia for civilian use and the heavy military demand have likewise led to successively more drastic limitations upon the civilian use of this fiber. The Government, reversing its former position of opposing the use of other fibers with wool, is offering premiums to those manufacturers employing blends of rayon with wool. In the case of cotton, increased military demand has led to Government regulations requiring the diversion of many looms to military production and limiting sales of a number of fabrics to orders bearing high preference ratings.

Style-simplification orders have been issued for many types of apparel in order to conserve fabric and leather supplies available for civilian consumption. The use of wool fabrics has been prohibited in the manufacture of many garments, and in order to conserve the other fibers limitations have been imposed upon styles using large quantities of piece goods. Regulations have been instituted to prohibit the further processing of bright-colored leathers and fabrics for shoe uppers, on the assumption that civilian demand for shoes will thereby be decreased.

It is virtually impossible to present a complete picture of the numerous changes, both in type of product and in quality, which are constantly being made in consumer goods. The following discussion is therefore limited for the most part to a discussion of some of the more significant modifications which have been made during recent months in the production of a limited list of commodities of importance to the civilian purchaser.[1]

Electrical and Other Household Appliances

Shortages of important metals have made it necessary for the Government to prohibit the production of many consumer durable goods and require radical changes in the construction of others. Government controls have either (1) limited the total number of units using these materials which could be manufactured in a given time, (2) limited the total amounts of materials which might be used in producing designated commodities and at the same time limited the amount which could be used in each unit, or (3) have prohibited entirely the production of goods requiring the use of strategic and critical metals.

Shortages of iron and steel as well as of other critical materials led to a number of curtailment orders late in 1941 and the first part of 1942. Orders relating to mechanical refrigerators, electric vacuum cleaners, and electric washing machines limited the number of units which manufacturers could produce, based upon the total production

[1] For a discussion of earlier changes see Monthly Labor Review, February 1941 (pp. 286-291): Effects of Rising Costs on Quality of Wearing Apparel.

in a specified preceding period. The War Production Board estimated that the saving in critical materials which would result from these orders would be at least proportionate to the reduction in the total number of units produced. To effect still greater savings, manufacturers were requested to limit the amount of critical materials which normally would have been used by substituting less-scarce commodities, redesigning models, and concentrating production on those models using relatively small amounts of such materials. According to market reports, however, some manufacturers tended to concentrate production on de luxe models for which profits were greatest.

The second type of control, curtailing the total amount of critical materials which could be consumed by an industry and at the same time limiting the amount which could be used in the production of a single unit of the designated commodity, was applied to the manufacture of domestic ranges and other cooking appliances. The total amount of iron and steel which could be consumed by any class of manufacturers was limited and these manufacturers were prohibited from using iron or steel covers on gas or electric stoves as well as any bright work containing copper, nickel, chrome, or aluminum. In the manufacture of portable electric lamps the parts in which the limited supplies of iron and steel could be used were designated in the order relating to this industry.

The third type of control, which prohibited the manufacture of certain civilian goods consuming large quantities of scarce metals, was instituted in the spring of 1942. Manufacture of many important civilian goods for which limited supplies of critical materials had formerly been allocated was ordered halted, as it became apparent that war industries needed an even larger proportionate share of these materials. By September 1942 the production of the following items for civilian use had been prohibited: Electric refrigerators, vacuum cleaners, sewing machines, electric ranges, domestic washing machines and ironers, radios and phonographs, metal household furniture, lawn mowers, and a group of smaller equipment including waffle irons, flat irons, toasters, percolators, food mixers, juice extractors, and water heaters. Although limited quantities of scarce metals have been allocated for use in the repair of such equipment, the amount in the case of sewing machines is controlled to the extent that no remodeling can be done.

To meet the needs for refrigeration occasioned by the cessation of production of electric refrigerators, the manufacture of nonmechanical units has been encouraged. In order to supply as much of the demand as possible and at the same time limit the amount of iron and steel going into this industry, manufacturers have been ordered not to use more than 20 pounds of iron and/or steel in any one unit, whereas the average amount formerly used was approximately 85 pounds. According to trade reports many manufacturers are using even less than 20 pounds of metal per unit in order to increase production. Since the amount of metal available to any manufacturer is limited in accordance with the total amount formerly used, the only means of increasing production is by economizing on the use of metals in each box produced.

In order to provide some new cooking units the manufacture of a limited number of domestic cooking and heating stoves, other than electric, is allowed. Production of these has been concentrated, by

Government order, in factories situated in small towns outside designated "labor-shortage areas." Manufacture is limited to a specified number of simplified lightweight models. Large manufacturers previously engaged in producing domestic cooking and heating stoves in the larger cities and in defense areas were ordered to convert to war industries.

The appearance of many of the items ordinarily used in the kitchen will be changed considerably as a result of recent regulations. The use of alloy iron or alloy steel (such as stainless steel) is prohibited in tableware and other "essential" cutlery (e. g., paring knives), while the use of any metal other than gold or silver is prohibited in the manufacture of "unessential" cutlery such as carving sets and pocket knives. The amount of iron, steel, and zinc available for the manufacture of essential cooking utensils and other household articles has been reduced materially, and the use of scarce metals in the manufacture of nonessential articles is no longer allowed. In determining the amount of scarce metals which will be made available to manufacturers of various types of products, consideration has been given not only to the need filled by a particular article but also to the possibility of substituting a less-critical material such as glass, wood, or earthenware.

As a result of the restrictions and limitation orders issued by the Government, the changes in appearance and serviceability of numerous products currently produced are substantial. Aluminum and steel cooking utensils are being replaced by glass; familiar enamelware is becoming scarce and items of glass and earthenware are being offered in its place; hard rubber handles on kitchen cutlery have been replaced by plastic, glass, or wood; canister sets are now being made of glass, wood, or plastic instead of metal; ashcans are being painted instead of galvanized; wood has replaced metal in the production of pails; washboards are being manufactured, using glass or all wood instead of zinc; garment bags now have snap fasteners and fiber frames instead of zippers and wire; wood is used instead of metal in medicine cabinets; hampers and towel racks will be painted and enameled instead of having a plastic finish; hardware for curtains and draperies will be replaced by wood, glass, and plastic; both table lamps and floor lamps will have bases of leather and wood, plastic, glass, or plaster; shower curtains are being made of rayon so treated as to be water-repellent, and garden hose is now manufactured with a fabric outer covering. In fact, for hundreds of products used around the home the consumer will find that he will be using glass, wood, plastic, and earthenware instead of the metals needed in the war effort.

Household Furniture

Government control has been extended to practically every raw material used in the production of household furniture. The use of iron and steel was severely limited in March 1942 and the production of metal household furniture was banned entirely at the end of May 1942. At the same time, the use of any metal other than iron or steel was prohibited. In order further to curtail the use of iron and steel, manufacturers of mattresses, bedsprings, studio couches, and similar sleeping equipment were required to reduce the iron and steel used by from 15 to 36 percent, depending upon the quantities previ-

ously used by the manufacturer. Manufacturers of springs were ordered to use wooden instead of metal frames.

As a result of these limitation orders, manufacturers substituted plastic, wooden, or glass drawer pulls in the place of copper hardware and at least one manufacturer discontinued the use of coils in the backs of studio couches. The number of coils in both bedsprings and innerspring mattresses was generally reduced and the usual number of steel crossbars supporting the coils was also reduced, while some manufacturers of upholstered furniture conserved metals through the use of flat springs instead of coil springs.

With the increasing shortage of iron and steel it was decided that the use of these metals in the production of civilian goods would have to be curtailed further. Accordingly, much more drastic regulations were announced by the War Production Board early in August 1942. The new order prohibited the processing, after August 1, of iron or steel for innersprings to be used in mattresses or upholstered furniture. The manufacture of innerspring mattresses was prohibited after September 1 and of any furniture utilizing innersprings after November 1. After October 1, the manufacturers of bedsprings were limited to from 6 to 12 percent of the iron and steel used in 1941. In addition, the maximum weight of iron and steel which can be used in bedsprings has been limited. The use of any iron or steel other than hardware in the manufacture of studio couches, sofa beds, and lounges was prohibited after November 1. The amount of joiner hardware used in any piece of furniture has been limited to 5 percent of its weight.

Stuffing materials used in the production of mattresses and upholstered furniture have also been limited by Government regulations. The use of duck feathers, down, and kapok has been confined to the manufacture of war products since February 1942. Only shorter lengths of sisal, and these in limited quantities, may be used for civilian goods, while a large volume of cotton linters has been diverted to the production of smokeless powder. Burlap, used to support coils in upholstered furniture, has been denied to furniture manufacturers since late in 1941, while cotton fabrics suitable for this purpose have become increasingly scarce as a result of the heavy war demand.

Although no limitation has been placed on manufacturers in the use of domestic woods, stocks of imported mahogany suitable for war purposes can no longer be used in civilian goods. Further, it has been announced that future imports of mahogany will be limited to those grades which are suitable for war purposes. Manufacturers of upholstered furniture have had severe limitations placed upon the qualities and quantities of wool which can be used in making upholstery fabrics.

"Victory" models, using wooden springs or wooden slats and cotton padding in the place of steel spring constructions, have already been introduced by many manufacturers. As substitutes for goose and duck down and feathers, manufacturers are reported to be using hair, casein fiber, cotton waste, and curled chicken and turkey feathers. However, demand for duck and goose down has been so great that New York manufacturers are using second-hand stocks, even though the furniture must be so labeled. In some cases bark fiber or "wood wool" (wood shavings) is being substituted for cotton felt. However, many retailers are reported to be reluctant to display these models until

after inventories of furniture and bedding built according to former specifications are sold, for fear that the obvious contrast between the old and new types will prejudice consumers against the latter. On the other hand, some retailers are said to feel that a gradual introduction of these new types is preferable to the sudden appearance of large stocks of the "Victory" models at a later date. Owing to the large inventories of iron and steel products which furniture manufacturers had accumulated previous to the Government order, and which they could use in the production of furniture until November 1, it is expected that the conventional type of furniture will be available to the consumer for some months. Furthermore, it was estimated that August 1942 inventories of furniture in the hands of retailers were considerably larger than normal.

Textile Products

Wool products.—Interference with shipments of apparel wool from Australia in the early period of the war, plus the heavy demand for wool occasioned by the rapid expansion of our armed forces, led the Government early in January 1942 to place sharp restrictions upon the use of wool for civilian purposes. Successive revisions of the Wool Allocation Order have limited civilian use of new wool still further until at the present time manufacturers of worsted fabrics are allowed only 10 percent of the poundage used for civilian goods in the corresponding period of 1941 and manufacturers of other wool fabrics 2½ percent, while the manufacture of nonmilitary blankets containing more than 80 percent of any type of wool is prohibited (except in blankets made solely of papermakers' wool felts or used-processing wool felts). For a short time in the spring of 1942 manufacturers of floor coverings were prohibited from using any new wool, but that restriction was removed and they are now allowed to use 25 percent of the poundage consumed in the corresponding period in 1941; use, however, is to be limited entirely to specified coarse types not suitable for military needs. In April 1942 the use of any wool in drapery and upholstery materials was prohibited and the use of new wool in interlinings of women's and girls' coats was forbidden. No wool of any type can be used in the manufacture of men's, boys', women's, and girls' lounging robes and beach coats.

Apparel.—The effect of the Wool Limitation Order on apparel thus far has been felt by the average consumer only slightly. Such an order had been anticipated by the trade and large stocks of wool and worsted fabrics, especially those suitable for men's wear, were woven previous to the effective date of the order. In addition, the consumption of apparel wool in 1941, the period on which allocations are based, was approximately 50 percent more than in 1940 and 70 percent more than the average in 1935–39.[2] When this relatively high consumption figure on which allocations are based is taken into consideration, together with the fact that large numbers of men are now in the armed forces and thus removed from the civilian market, the supply of wool allocated for use in civilian goods is not so limited as might at first appear. Furthermore, it is expected that manufacturers will make greater use of noils and re-used and reprocessed wools, as the full effect of the limitation on the use of new wool becomes apparent.

[2] U. S. Bureau of Agricultural Economics report: The Wool Situation, Washington, April 1942, p. 3.

In addition, manufacturers are given more liberal allowances if they will use only specified coarser grades of wool, while restrictions formerly issued upon the use of mohair have been removed entirely. Also, rayon producers are required to set aside a specified percentage of their acetate and viscose fiber production each month for woolen and worsed manufacturers, and these manufacturers are offered a bonus of additional wool if they employ blends of rayon. The Government requires a minimum of 20 percent wool in these blends, on the assumption that this amount is required for warmth-giving purposes, and permits a maximum of 65 percent wool. Blends were first used by manufacturers who wished to avoid the necessity of marking finished goods at sharply higher prices as the cost of the raw material moved upward, and, to a less extent, they were employed for decorative purposes.

With the Government's present practice of encouraging the mixture of other fibers with wool in order to conserve supplies, manufacturers have taken the opportunity to renew their opposition to the Wool Products Labeling Act, and are urging at the least its suspension for the duration of the war. Since blends must be employed if anticipated civilian demand is met, these manufacturers contend that they should not be required to disclose "trade secrets" concerning the manner and extent of such blending. It is also contended that to reveal the extent of substitution on the label would prejudice consumers educated to accept the superiority of products made entirely of new wool.

Manufacturers of apparel are employing various expedients to stretch their wool allocations. In the men's worsted field, lighter-weight fabrics are being manufactured. This trend had started several years ago as the need for heavier clothing diminished with the widespread use of better domestic heating facilities and heaters in cars. Woolen fabrics are being promoted in lieu of worsteds because manufacturers have had more experience with blends for woolens than for worsteds. The recent lifting of restrictions on the use of mohair will supply wool-fabric manufacturers with additional sources of fibers for blending. Interlinings of cotton and haircloth have had to be substituted for linen interlinings as imports of the latter were cut off, and in the cheaper grades all cotton is being used by some manufacturers. Manufacturers of sweaters are employing yarns made of cotton cones wrapped with wool in order to retain the appearance of an all-wool sweater. Blends of 60 percent wool and 40 percent cotton are being used extensively in the manufacture of men's overcoats.

Housefurnishings.—Rugs have been more drastically affected by the shortage of wool than nearly any other civilian product. Imports of the far eastern wools, used for rug manufacture, were cut off early in the war. South American wools, coarser than the far eastern varieties formerly used, were first substituted. As the shipping situation became progressively worse and the prices of raw materials advanced rapidly, manufacturers began blending rayon with wool in the popular-price lines. The resulting product is reported to be less resilient and therefore has poorer wearing qualities. Cotton has been substituted for jute (an imported product) in backings on rugs since May 1942, when the use of jute was prohibited in all civilian goods. As a result of these restrictions upon the production of wool rugs, many manufacturers have turned to weaving Army blankets and similar goods, while some are increasing their production of cotton rugs.

Although blankets containing more than 80 percent wool have not been manufactured since April 1942, stocks carried over from the previous year were still available in many retail stores in the fall of 1942. However, pastel shades have practically disappeared, as a result of the use of coarser wools on which darker dyes were necessarily used. Some manufacturers had introduced blends of rayon and wool rather extensively in 1940 and 1941, so that considerable experience had been gained before the Government required this practice. Representative manufacturers have reported that since the Wool Allocation Order they have introduced blends of approximately 80 percent wool and 20 percent rayon. Aralac, a protein fiber, is also being blended with wool in some cases.

Cotton products.—Although no limitations have been placed upon the total volume of raw cotton which may be used in the production of civilian goods, the supply of certain fabrics has become limited as a result of Government regulations, while qualities used in civilian goods have often been deteriorated voluntarily by manufacturers as an alternative to advancing prices. Although the latter technique has been prohibited since the inauguration of the General Maximum Price Regulation, qualities had been changed materially before that date.

Many looms suitable for the production of military fabrics have been converted to this purpose, in some cases voluntarily, in others by Government order. Thus, all cotton mills were ordered in April 1942 to convert a specified percentage of their looms employed in the production of certain civilian fabrics (such as bed tickings used for covering mattresses, and cottonades, suiting coverts, and denims used for men's work trousers) to the production of goods for military purposes. Supplies of the affected civilian fabrics have been diverted by Government order from less-essential civilian uses to civilian uses bearing high preference ratings. For example, manufacturers of men's work clothing are given preference ratings for acquiring needed materials before manufacturers using similar fabrics for less-essential purposes.

Carded yarns are necessarily being substituted for finer combed yarns in many civilian goods as a result of the WPB order requiring mills to earmark at least 40 percent of their medium combed yarns and 65 percent of their coarse combed yarns for the armed services.

Rayon products.—The principal uses of rayon have also been noticeably influenced by wartime demands and restrictions. In August 1942 a trade publication reported that it was anticipated that less than 60 percent of the rayon produced in 1943 would be available for civilian products. Hosiery manufacturers are expected to receive about 9 percent of the total rayon supply next year and worsted manufacturers will likewise receive sizable amounts. Army orders for flare chute cloth, as well as hosiery knitting requirements, draw heavily upon the finest-size rayon yarns, leaving comparatively little yarn of that character for the sheer rayon dress fabrics. Meanwhile, expansion of rayon production is limited by the supply of scarce materials, such as chemicals and linters, which can be allocated to producers for this purpose.

The shortage of rayon available for civilian purposes, relative to the expanding demand, has already been reflected in certain changes in the use of this material. Weaving of some popular rayon fabrics requiring large amounts of yarn per yard has declined somewhat in 1942. For example, satin has, in some instances, been replaced by crepe, twill, or faille weaves. In order to make the most of their

rayon supply, weavers are tending to drop the cheaper rayon constructions suitable for inexpensive print frocks, and to refrain from introducing the customary large number of new fabrics.

Leather Products

Shoes.—Not until the spring of 1942 had evidences of widespread changes in the quality of leather products begun to appear. At that time reports were received that some manufacturers were substituting kip, elk, or side leather for calf uppers in men's shoes, and split uppers were being used in some work shoes. One retail buyer reported that he had returned a shipment of men's shoes in which the leather used on the inner side of the shoe was of a quality inferior to that used on the outer side, while another had received a shipment of work shoes which had been so carelessly inspected that the eyelets were missing on one side.

Many manufacturers have substituted a three-quarter sock lining in women's inexpensive shoes in place of the full lining and in some cases the sock lining has been eliminated entirely. The style trend toward greater use of gabardine in women's shoes was accelerated in the winter of 1941 as a result of the higher prices for leather, while the use of elasticized fabrics has been reduced because of the curtailed supply of latex available for civilian use and the fact that further processing of rubber yarns into such fabrics is prohibited.

Composition soles have been substituted for leather by some manufacturers of children's shoes. Because of the low mark-up which retailers obtain on cheaper shoes for children, many are concentrating their sales efforts on medium- and better-quality grades.

Most of the quality substitutions in shoes made previous to 1942 were the result of manufacturers' efforts to absorb rising costs or to increase profits without an advance in price. Certain substitutions are now necessarily made, however, as a result of Government orders reserving qualities of certain leathers for use by the armed forces. All vegetable-tanned outersole leather of 8½ to 11 iron thickness in the medium and better grades is now reserved for military use, as is 80 percent of the first-quality leathers ranging in thickness from 5½ to 7 iron. These qualities were used in the medium- and better-grade shoes for both men and women. As a result, manufacturers of civilian shoes will now necessarily use the lower qualities. In addition to prohibiting the use of certain qualities of leather the War Production Board has limited the manufacture of steel shanks for shoes to three types. Moreover, the Government has ruled that rubber heels produced after September 1 from salvage rubber shall be stamped with the "V" symbol followed by a number designating its quality. This victory-type heel will be available in black only, and is not expected to give such satisfactory service as its predecessors.

Early in 1942 the WPB asked shoe manufacturers to avoid wasteful styles, such as overlapping tips and foxings on shoe uppers, and the heavy double-sole construction characteristic of brogues. Manufacturers voluntarily introduced styles and methods of production to conserve available stocks of leather. One large manufacturer is reported to have reduced his leather requirements for civilian goods by as much as 33⅓ percent through the use of conservative designs and more economical cutting of leather. On their own initiative manufacturers are making use of a large quantity of shoe leathers having an unde-

sirable appearance by processing them in an embossing shop so that wrinkles, grain, or other imperfections are smoothed away or covered by a pattern. In order to provide more sole leather from available hides, some tanners are splitting cowhides in such a manner that the inner, flesh split can be processed into sole leather suitable for platform shoes or other specialty footwear. Another manufacturer is using the small pieces of leather left after soles have been cut, arranging these in "tank-tread" fashion and treating them with waterproofing material. Several attempts have been made to find substitutes for leather soles. At least one large chain is using wooden soles with leather pegs for certain shoes, but the trade does not expect that the use of such a sole will become widespread, at least for the present.

The WPB decided in September 1942 that voluntary efforts on the part of manufacturers were not leading to adequate conservation of leather supplies and issued an order limiting the colors of leather footwear and making compulsory certain other conservation techniques.[3]

Handbags.—In the spring and summer of 1942 an increasing proportion of leather purses were sold with textile handles and cloth gussets in the side, and in the fall of 1942 many more all-fabric bags were being offered for sale. Manufacturers of leather purses are more frequently printing warnings to the effect that the purse is not guaranteed against crocking (color rubbing off from leather). Zippered compartments have disappeared gradually from the less expensive lines, and the use of metal in closure devices was sharply reduced by eliminating ornamental frills or utilizing wooden frames. The quality of rayon-twill linings has noticeably declined in fineness of weave in recent months.

Reduction and Simplification of Styles

Early in the war program it became evident that materials used in the production of civilian apparel would have to be conserved in order to have adequate supplies of military clothing. The heavy demand for military use was occasioned not alone by the anticipated large size of the army but also because of the greater amount of clothing required for each individual in the armed forces as compared with his requirements as a civilian.

Because of the great importance of wool in military clothing the first style-simplification orders, as already indicated, were concerned primarily with conservation of these fabrics. The use of wool in so-called nonessential clothing and styles using excessive quantities of wool fabrics were prohibited. As the war demand for cotton products increased, orders relating to the conservation of cotton fabrics were issued, due primarily to the inability of the industry to increase production because of the limited number of looms and skilled laborers available rather than to any present shortage of cotton. With respect to civilian apparel generally, it has been the policy of the WPB to oppose frequent style changes (other than the elimination of models using excessive quantities of materials) in order to reduce style obsolescence. Those styles which have been prohibited are considered to require appreciable cloth supplies without adding materially to the durability of the garment. In the case of shoes the object of WPB regulation has been to discourage many purchases occasioned by the current style trend of wearing colored shoes harmonizing with a coat, suit, or dress. The appearance of women's shoes will perhaps

[3] See p. 902.

be affected more than other items, in that two-tone effects as well as bright-colored uppers can no longer be manufactured.

The full effect of many of the provisions of these orders will not be apparent to the consumer for some time. Although cuffs are not permitted on suits being sold, large inventories of men's clothing carried over from the previous season have the wider belts, deeper lap, and belted coats which are not included in models now in production. Because women's clothes are more highly styled than men's, production is not started much in advance of the seasons and stores carry over few garments from one season to another. For this reason women's clothing in the fall of 1942 showed to a greater extent the changes resulting from the style-simplification orders. However, the dyeing of leathers and fabrics in bright colors for footwear did not cease until September 13, and it will be at least several months after that before shoe manufacturers will have used all these supplies. For this reason the effects of the shoe-simplification order will probably not be very noticeable to the civilian trade until the spring of 1943.

Men's and boys' apparel.—Men's and boys' woolen clothing was the subject of the first WPB style-simplification order which was issued early in March 1942. This order, concerned mainly with the conservation of wool fabrics, did not contain any features which would result in the production of garments radically different in appearance from those previously produced. This was intentional, as it was felt that any order which would seriously outmode the suits and coats now in use would, by that very fact, defeat its own purpose. The principal provisions of the order were the prohibition against the inclusion of the following features in men's wool outerwear: 2-trouser suits, use of vests with double-breasted suits, belted-model coats, patch pockets, inside bellow pockets, and pleats and cuffs on trousers. Certain maximum measurements were specified in relation to size, and the sweep of overcoats and topcoats and lap on double-breasted models were limited. Boys' clothing was put under the same restrictions, with the necessary changes in measurement.

Lounging-robe manufacturers were prohibited, in a later order, from the use of wool fabrics in any of these garments, and limitations were placed upon the cut of garments of this type made from other fabrics in order to conserve materials.

The work-clothing industry, which competes with war industries for large quantities of heavy cotton fabrics, was ordered to simplify the styles of its garments early in August 1942. The order applied to bib overalls, waistband overalls (dungarees), overall jackets, one-piece work suits (coveralls), work pants, and work shirts. It was estimated by a War Production Board official that an annual saving of approximately 21,000,000 yards of cloth would result from this order. The maximum and minimum amount of fabrics which may be used in the production of any of these garments is specified in the order. For general-purpose work clothing the number of pockets is limited, and the number of buttons, buckles, bartacks, and reinforcements which may be used for each type of garment is designated. The order bans false stitching or more than double stitching, pockets and waistbands made of twill, drill or jean (except when short lengths are used), and pockets of more than one thickness of cloth. For special-type overalls made for workers in specific trades such as carpenters, ironworkers, and miners, manufacturers may con-

tinue to use additional material to reinforce knees, seats, and other portions of the garment which are subject to severe strain, but the maximum and minimum yardage is limited for each type and each type must be marked to show the purpose for which it is to be used.

Shirts and pajamas.—Simplification orders have been under consideration for some time. Action will probably be postponed until the spring cutting season, however, as the pajama industry reported that manufacturers had sufficient piece goods to complete their fall lines, and as a midseason restriction would have particularly penalized small stores, which rely in greater part on hand-to-mouth buying.

Women's and girls' apparel.—Women's and girls' outerwear was the subject of a style-simplification order issued in April 1942. This order applies to outerwear cut from any type of fabric, in contrast to the order on men's and boys' outerwear which applied only to wool garments. The order provides that no more than two separate pieces of outer apparel—e. g., a skirt and jacket—can be priced as a unit, thus eliminating 3- or 4-piece suits. Maximum lengths and widths of skirts are designated in relation to sizes, and the depth of hems and width of belts are limited. The manufacture of hoods, shawls, capes, scarfs, and overskirts with dresses is prohibited, as is the use of tucking, shirring, pleating, and large sleeves which consume large quantities of materials. Linings of new or reprocessed wool cannot be used in coats, nor can wool cloth ordinarily be placed under fur trimmings. The manufacture of wool evening wraps is prohibited.

Lingerie is limited to styles without ruffles, all-over pleating, tucking, or full sleeves. Excessive lengths and sweeps are prohibited.

Robes, housecoats, negligees, beach coats, lounging robes, and pajamas can no longer be manufactured from fabrics containing any wool. When these garments are cut from other types of fabrics, restrictions relating to fullness of sleeves, and the use of trimmings, shirring, pleating, and tucking apply. The order prohibits the sale, at a unit price, of any one garment with another.

Shoes.—Owing to the increased demand for materials used in the production of shoes, the War Production Board in September 1942 issued a conservation order which is expected to save materials to a greater extent than did the voluntary program. Some of the more important features of the order are the prohibition against the manufacture of double leather soles except for work shoes, footwear of more than one color unless made solely of materials other than leather or rubber, wing tips except on children's shoes, overlay tips except on work shoes, and metal trimmings and leather bows unless they have been cut from pieces which can serve no functional purpose. Shoe uppers are limited to six designated colors (black, white, three shades of brown, and one shade of blue). In general, a manufacturer may not use any designs or constructions other than those manufactured by him between September 1, 1940, and September 10, 1942, except in those cases in which changes must be made in order to comply with the restrictions of the order, or changes made voluntarily to make possible still greater savings of leather and other materials.

With the increasing diversion of raw materials and labor to meet war needs, further restrictions will doubtless be placed upon the production of civilian goods. However, the nature of future restrictions will depend in large part, no doubt, on the developments of additional shortages which have not been foreseen, as well as the need for economizing on the use of manpower in civilian industries.

INDIRECT PRICE INCREASES[1]

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RAPID changes in the general conditions of demand and supply are always reflected in a great number of variations in quoted prices. Equally general, but less well known, are numerous other closely related but indirect price changes. These are of widespread importance even in peacetimes, and particularly during periods of advancing industrial activity, when they often result in increasing materially the realized prices of sellers as well as the net costs to buyers, without formal changes in price quotations. Thus, when markets are active, "extra" charges for services or for certain particular grades of a product may be imposed, qualities of materials sold may deteriorate, their sizes may be reduced, free delivery may be withdrawn, etc., although the quoted price may remain unchanged. In periods when business activity is declining, the net effect of indirect changes is reversed; extra charges are withdrawn, new discounts are allowed, and buyers may effectively raise their standards of acceptable quality. For general observers of the price situation such changes in most cases are both difficult to detect and difficult to measure.

For many reasons the frequency of indirect or "hidden" price changes is vastly accelerated in war periods and the general importance of such changes is substantially increased. Their swift growth in a war economy is as inevitable as the sweeping changes required in production and transportation, the multiplicity of new activities undertaken, the succession of technical problems to be solved, and the formidable administrative tasks suddenly thrust upon government and business. Since the outbreak of the present war, indirect price increases in American markets have been considerably more significant for many products than have the actual changes in formal price quotations. Since indirect changes are measurable only in small part, price statistics in many cases must be interpreted with these important qualifications in mind. Formal price increases for some commodities grossly understate the growth both in unit income received by sellers and in the unit cost to buyers.

Reasons for Indirect Price Increases

The pressures making for indirect price increases in the 3 years since the outbreak of war in Europe in August 1939 have been of two general kinds. On the one hand, sellers have endeavored to cover advancing cost or to increase profits, despite the maintenance of customary price lines or despite impediments such as OPA maxima to formal upward price revisions. On the other hand, they have endeavored to maintain production standards of the past—or the appearance of such standards—despite drastic changes in the types and quantities of raw materials available.

The forces generating higher prices have, of course, been numerous and powerful. Huge government expenditures and expanding con-

[1] This article is based primarily upon information obtained in the field by staff representatives of the Bureau of Labor Statistics.

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sumer incomes have increased the demand, whereas the expansion of supply during the change-over to a war economy has been difficult, and for some kinds of goods, impossible. Normal sources of supply for many commodities, such as silk, rubber, and tin, were lost. Production shifted abruptly from consumer to producer goods; scarcity made economies necessary for such materials as aluminum and steel; and numerous bottlenecks delayed the completion of production facilities for new supplies. Against these pressures were placed the growing price controls of the Office of Price Administration. During the earlier period of regulation, price "ceilings" were imposed on a "selective" basis, i. e., only on important "key" commodities or on those whose prices had been advancing with particular sharpness in the primary markets. They were not imposed on retail prices. In May 1942 a general price "freeze"—the General Maximum Price Regulation—was imposed on all products at all levels of distribution with the main exception of farm products and certain foods.[2]

Thus, businessmen have in general been impelled to avoid, at least in part, the overt price increases which ordinarily would have been called forth by the prevailing market situation. While the Office of Price Administration has vigorously expanded its efforts to control indirect increases in price, particularly in recent months, the administrative problem posed in defining, detecting, and eliminating these changes is a huge one. Moreover, it is recognized that some indirect price increases are unavoidable in the light of underlying conditions, and that others—from the standpoint of the economies required in war—must be regarded as desirable.

Extras, Discounts, and "Concessions"

Among the most important examples of indirect price increases are those found in the markets for basic metal products, such as steel, copper, brass, lead, etc., sold by their producers in simple shapes such as sheets and rods to enter as essential materials in almost every area of the economy. As a rule, these products are quoted at fixed "base" prices which change only slowly and by small amounts, irrespective of how sharply demand and supply conditions may change. Actually, in contrast to the rigidity of published quotations, the effect of a high degree of price flexibility is achieved through the manipulation of a complex structure of discounts and extra charges.

Producers of metal-mill products ordinarily publish elaborate price lists, including base prices for each type of product sold, "extra" charges which apply for certain physical (length, thickness, etc.) and chemical specifications, and discounts allowed for larger-quantity purchases and for other purposes. Published base prices seldom change, but published extras and discounts vary more frequently. Moreover, and more important, the extent to which published base prices, extras, and discounts apply to actual sales customarily varies much more widely from time to time than formal price lists indicate. In periods of small or average demand, "concessions" from base prices become customary, full discounts are allowed, and extra charges are levied only in part or in some cases may be waived entirely. When

[2] The General Maximum Price Regulation was issued by the Office of Price Administration, April 28, 1942, effective at wholesale May 11, at retail May 18, and for certain services on July 1. Since the issuance of this regulation the power of Federal officials has been broadened to control additional foods as well as all farm products.

demand rises, these practices leave considerable room for increasing not only the unit incomes received by sellers but also the unit costs to buyers, without changing formal price quotations. In some cases OPA regulations have successfully eliminated this type of hidden price increase, but in certain others—particularly where difficulty was encountered in fixing maxima at prevailing rather than published base prices, discounts and extras—the advance in actual prices paid has, within substantial limits, been allowed to continue.[3]

In table 1 are shown various examples of indirect price increases and their effects upon actual net prices paid by selected consumers of various steel products. The times chosen for illustration are those nearest to August 1939, just before the outbreak of war in Europe; to April 17, 1941, the effective date of the Office of Price Administration's ceiling on steel products; and some month in late 1941 or early 1942. The table indicates that, whereas published base prices rose only moderately or not at all, actual net prices paid by some consumers rose very sharply.

In one case (reinforcing steel bars) the published base prices rose 13 percent between August 1939 and December 1941, while the net price actually paid rose by about 40 percent. In all the other examples published base prices as well as published extras and discounts remained unchanged and in one case declined, whereas actual net prices paid rose from 7 percent (standard pipe) to nearly 50 percent (cold-rolled strip). In all the examples freight was unchanged, except for a very small increase (2 cents per hundred pounds) on shipments of cold-rolled strip. The principal factors in the increase in actual prices paid were the withdrawal of "concessions" allowed from published base prices, the withdrawal of discounts ordinarily considered applicable, and the imposition of extras which, though published, had not previously been charged or had been levied only in part. Thus, the table shows first, the effect of withdrawing a concession or rebate; second, the effect of withdrawing a special discount; third, the effect of imposing a new extra charge; fourth, the combined effects of withdrawing a concession and increasing the amount of an extra charge; and fifth, the combined effects of withdrawing concessions from the published base price, withdrawing a "mill-run" discount formerly allowed and imposing a new extra charge for size specification.

The examples above from the steel industry are typical of numerous similar practices common in the sale of brass, zinc, lead, and other metal products. However, the use of extra charges and/or discounts of one kind or another, although considerably more common in the sale of metal products, appears in several other markets. For example, building materials of numerous kinds are commonly quoted at discounts off list price, and these discounts have in some cases been lowered substantially. Thus, in late 1941 and early 1942, regular trade discounts in many areas were reduced on roofing from 10 to 5 percent, on certain paints from 20 to 15 percent, and on sewer

[3] Thus, in the original maximum price schedule on iron and steel products issued April 17, 1941, "basing-point base prices" are defined as "the prices announced prior to December 31, 1940, by Carnegie-Illinois Corp., American Steel & Wire Co., and National Tube Co., as base prices effective during the first quarter of 1941 * * *." Extras and discounts were defined as "charges in effect March 31, 1941, prescribing additions or deductions from the base price * * *." It was found necessary by the Office of Price Administration, however, to clarify these definitions on several occasions, later, in order to distinguish between charges actually prevailing and those formally announced or published. For example, in December 1941 the Office of Price Administration defined an extra "in effect" as one which had been both published and filed with the OPA and had been "customarily charged" on April 16, 1941, or "during the 2 or 3 preceding years."

TABLE 1.—*Effect of Indirect Price Increases on Actual Prices Paid by Consumers of Specified Steel Products* [1]

Commodity and type of price	August 1939	May 1941	January 1942	Percent of change, August 1939 to December 1941
Withdrawal of "concession"—reinforcing steel bars, Washington, D. C.				
Reinforcing bars (½" round):				
Published base price, hundredweight	$1.90	$2.15	[2] $2.15	+13
Actual base price paid, do	1.50	2.00	[2] 2.15	+43
Actual net price paid [3], do	1.80	2.30	[3] 2.45	+36
Reinforcing bars (¾" round):				
Published base price, do	1.90	2.15	2.15	+13
Actual base price paid, do	1.50	2.00	2.15	+43
Actual net price paid [3], do	1.60	2.10	2.25	+41
Withdrawal of discount—standard steel pipe, Philadelphia				
Standard pipe (10¾" O. D. 40–48 pounds per foot):				
Published base price, foot	$4.12	$4.12	$4.12	0
Actual base price paid, do	4.12	4.12	4.12	0
Special discount for machining, do	.10	.10		
Other discounts, do	2.65	2.59	2.65	
Actual net price paid [4], do	1.50	1.56	1.60	+7
New extra charge—steel wire, Philadelphia				
Manufacturers' wire (0.118 bright basic wire):				
Published base price, hundredweight	$2.60	$2.60	$2.60	0
Actual base price paid, do	2.60	2.60	2.60	0
Extras:				
Size, do	.10	.10	.10	
Processing, do	.60	.60	.60	
Heading, do			.50	
Actual net price paid [5], do	3.62	3.62	4.12	+14
Withdrawal of "concession" and increase of extra charge—cold-rolled steel strip, New York City				
Cold-rolled strip (6.001 x 0.035" temper No. 4):				
Published base price, do	$2.80	$2.80	$2.80	0
Actual base price paid, do	2.55	2.60	2.80	+10
Size extra, do	.35	.35	1.15	
Actual net price paid [6], do	3.26	3.31	4.33	+33

See footnotes at end of table.

TABLE 1.—*Effect of Indirect Price Increases on Actual Prices Paid by Consumers of Specified Steel Products*[1]—Continued

Commodity and type of price	Withdrawal of "concession" and discount and imposition of new extra charge—cold-rolled steel strip, Toledo			
	September 1939	June 1941	April 1942	Percent of change, September 1939 to April 1942
Cold-rolled strip (0.065" x 12⅛" x 96"):				
Published base price.....hundredweight..	$3.05	$3.05	$2.80	−8
Actual base price paid.....do....	2.75	3.05	2.80	+2
Size extra.....do....	----------	----------	1.20	----------
Mill-run discount.....do....	.10	.10	----------	----------
Actual net price paid [6].....do....	2.80	3.10	4.15	+48

[1] Computed from data collected in a special field study by Bureau of Labor Statistics.
[2] December 1941.
[3] Including extras, discounts, and freight which were unchanged throughout the period.
[4] Including freight from basing point which was unchanged throughout the period.
[5] Including freight which remained unchanged throughout the period.
[6] Including freight from basing point which rose only slightly (2 cents per 100 pounds) during the period.

pipe from 25 to 20 percent; on zinc oxide in one area a 25-percent discount was eliminated altogether. In the markets for chemicals a discount of 2 to 5 percent on trisodium phosphate was withdrawn and the extra charge for bagged nitrate of soda was raised from $2 to $3 per ton over the price for nitrate in bulk.

Even for such products as clothing, roughly analogous market practices are to be noted. Many manufacturers of neckwear, sweaters, jackets, and sportswear have added an extra charge of 25 cents per dozen for sewing in labels, formerly included without charge. Protective "pliofilm" covers for hats, formerly supplied by manufacturers without charge, now cost from 15 to 35 cents per dozen.

In some markets efforts to increase net prices through indirect methods have resulted in violations of OPA maximum price regulations and in this connection Federal officials have issued repeated warnings. Coffee dealers and jobbers were accused of obtaining illegally a 7½-percent premium on small orders, through refusing to sell except in lots of 25 bags or less.[4] Similarly, dealers of paraffin wax were charged with splitting shipments into units small enough to obtain a premium amounting to 1½ cents per pound.[5]

Transportation and Changing Channels of Distribution

Through the war period the routes that numerous commodities have taken in trade, the marketing structure through which they pass, and the level and incidence of transportation costs have been altered drastically. In some cases, such as the shift in shipments of gasoline from tanker to railroad, the change was beyond the control of marketers and the added costs involved have been largely absorbed by Government subsidies. In others, these changes have taken the form of substantial indirect price increases to the buyer.

[4] OPA Release No. PM-3342, May 18, 1942.
[5] OPA Release No. PM-2972, April 18, 1942.

For example, certain producers of scarce commodities whose products are sold under ceilings fixed on a "delivered" basis, have shown preference to nearby consumers in order to save freight charges. Where supply problems have become serious for this reason, relief has frequently been provided by the Office of Price Administration. Thus, sellers of hide glue have been permitted to add transportation costs in excess of 75 cents per hundred pounds—a price increase for some consumers which is not reflected in the formal base quotation for this product. Similarly, additional charges for freight costs are now added to the prices for waste paper under some conditions, for certain coal-tar derivatives (benzol, toluol, xylol, and solvent naphtha), and for other products.[6]

Where geographical pricing structures are more elaborate, shifts in transportation costs often take the form of changes in basing points. Thus, for the domestic grade of sodium nitrate, formerly quoted at Gulf or Atlantic ports, this was accomplished through quoting the price at Hopewell, Va.—a change which has resulted in added costs for some southern consumers. For steel an informal shift in basing points from Pacific coast ports to eastern base points has substantially increased costs for consumers in western States. Although Pacific basing points are formally still in effect for steel shipped from eastern mills by water or for steel supplied by western mills, the great bulk of the product is now transported by railroad because of the shortage of shipping space, and the type and sizes rolled by western mills are highly limited. The effect upon a buyer of steel in the West is shown in table 2. Formal base prices remained unchanged from May 1941 through April 1942, but actual net prices paid rose from 15 to 22 percent. Between these two dates the base point effective for this consumer had been changed from the Pacific coast to Chicago, thereby shifting the costs of transportation from seller to buyer.

TABLE 2.—*Effect of Change in Basing Point on Actual Prices Paid by a Consumer of Structural-Steel Forms, San Francisco* [1]

Commodity and type of price		May 1941	April 1942	Percent of increase, May 1941 to April 1942
Structural angles (base size):				
Pacific coast base price paid	hundredweight	$2.75	$2.75	0
Chicago base price paid	do		2.10	
Freight from basing point	do	.03	1.17	
Actual net price paid	do	2.78	3.27	18
Structural beams (base size):				
Pacific coast base price paid	do	2.75	[2] 2.75	0
Chicago base price paid	do		2.10	
Freight from basing point	do	.03	1.10	
Actual net price paid	do	2.78	3.20	15
Universal plates (base size):				
Pacific coast base price paid	do	[3] 2.65	2.65	0
Chicago base price paid	do		2.10	
Freight from basing point	do	.03	1.17	
Actual net price paid	do	2.68	3.27	22
Structural channels (base size):				
Pacific coast base price paid	do	2.75	2.75	0
Chicago base price paid	do		2.10	
Freight from basing point	do	.03	1.17	
Actual net price paid	do	2.78	3.27	18

[1] Computed from data collected in a special field study by Bureau of Labor Statistics.
[2] February 1942.
[3] April 1941.

[6] In some other cases the OPA has been forced to issue special warnings against adding unusual or unauthorized charges for freight to selling prices. (See amendment to price schedule No. 36 (Douglas fir lumber) and OPA Release No. OPA-T 3, June 24, 1942 (paper and pulp).)

Aside from changes in the incidence and amount of transportation costs, however, other aspects of the marketing structures for many commodities have undergone a marked transformation. Thus, the place of the dealer in the distribution of scrap metals, once of vital importance, has now faded into relative insignificance for metals such as aluminum. In order to insure the prompt flow of such strategic materials into proper channels, Federal officials have ordered that producers of certain types of scrap turn these waste materials directly into the hands of designated industrial consumers, without the intervention of dealers.[7] Besides resulting in economies in the use of important metals, such changes have often resulted in savings for buyers.

In contrast, in certain periods since August 1939 the number of jobbers and dealers in some commodities increased, and their added charges became a part of the ultimate buyer's cost. In mid-1941 this was particularly true of chemical markets, where speculation had encouraged the growth of a "resale" market in which some materials were sold at prices many times the formal quotations prevailing. Thus, although original producers maintained published quotations unchanged at 5½ cents per pound for formaldehyde and 19¾ cents for potassium permanganate, these products actually sold to some consumers at 13 cents and 60 cents, respectively.[8] Similarly, oxalic acid was quoted at 10¾ cents but actually sold for 23 cents per pound.[8] Sales in these cases were effected through intermediaries—jobbers and brokers—many of whom were newcomers in the market. This practice was promptly censured by Federal officials and reports of it later disappeared from trade journals.[9]

Quality Changes

Quality changes constitute one form of indirect price movement of major importance. Among consumer goods these changes are in many cases not readily detected, although the Wool Labeling Act and the requirements of the Federal Trade Commission for labeling rayon have materially improved this situation. Accordingly, quality changes in consumer goods represent the best-known example of the "hidden" price increase.[10] Thus, the weight and wool content of fabrics in apparel, blankets, and other products made of wool has been lowered; thread counts in cotton fabrics have been reduced, silk in numerous uses has given way to cotton or rayon, cheaper grades of leather have been substituted for calf in shoes, and so on. In most cases, no formal price reductions were made to compensate for this deterioration in quality, and substitutes have commonly sold in the same "price lines" as the originals. The most recent of these quality changes in consumer goods are discussed in some detail in the preceding article in this issue (page 891).[11]

While perhaps not so spectacular, similar changes in producer goods have likewise occurred on a broad scale during the war period. Among producer goods, however, these changes are in the majority of

[7] Office of Production Management, Supplementary Order No. M-1-D, January 7, 1942.
[8] Journal of Commerce (New York), May 7 and May 14, 1941.
[9] OPA-CS Release No. PM-866, August 5, 1941.
[10] For purposes of measuring changes in the cost of living, expert "shoppers" of the Bureau of Labor Statistics carefully define each commodity priced in order to ascertain, so far as possible, all important changes in quality. Where such changes occur, every effort is made to price products of quality equivalent to that of the original. Hence, "hidden" price changes of this type are in considerable part discovered and accounted for in the Bureau's index of the cost of living.
[11] See also Monthly Labor Review, February 1941 (pp. 286-291): Effects of Rising Costs on Quality of Wearing Apparel.

cases subject to ready detection. The size and chemical composition of metals are usually carefully defined and are always subject to test; the qualities of hides and leathers, of lumber, machines, tools, dyes, chemicals, and other commodities used in production may likewise be classified with some precision. Yet quality changes have occurred in many producer-goods markets even though they occur with the knowledge of buyers. The relative scarcity prevailing, combined with swollen demand, has resulted in the placing of premiums of one type or another on almost all materials, while Government regulations have prohibited or eliminated the uses of many strategic commodities for certain purposes.

Accordingly, specifications for certain producer goods have been openly altered with no compensating change in price. For example, phosphate rock, used for mixed fertilizers, was until December 1941 sold with a minimum bone phosphate lime content of 72 percent, but since that date this content has been reduced to 70 percent. Secondary aluminum sold to the steel industry for deoxidizing purposes formerly possessed from 96 to 98 percent pure aluminum content, but more recently has been reduced in purity to a content ranging down from 94 to 88 percent in some cases. Similarly, formulas for dyes, paints, and certain other chemical products have been reduced in strength or altered in other ways. For products such as reconditioned steel drums (of great importance in shipping lubricants, fuel oils, and certain foods and chemicals), standards of durability, cleanliness and soundness have been progressively lowered.

Such revisions in specifications as those noted above are frequently accomplished with the knowledge of Federal price officials. They may in such cases be permitted because supply conditions, inevitable in a war economy, as well as the nature of the uses involved appear to warrant the changes, or because problems of grade classification or strict enforcement present unusual difficulty. There is another type of change, often referred to as "upgrading," in which closely related quality changes are accomplished with the main objective of evading Office of Price Administration maximum-price schedules. Since this practice is illegal, under OPA regulations, little specific information is available, but general reports have appeared with frequency and at great length in trade publications as well as in official statements of the OPA and other Government offices. In the case of scrap steel, aluminum, and zinc—commodities of critical importance to the war effort—dirty, contaminated, or impure and unsegregated scrap has been reported sold at the maximum prices set for clean and dry, or pure and segregated materials.[12] In this way—through billing low-grade products as high-grade products—indirect price increases ranging up to 40 percent have occurred. Similarly, "upgrading" has been reported at various times for waste paper, hides and skins, lumber, and meat products.[13] Court injunctions were requested by OPA early in September 1942 against more than 100 meat packers and wholesale distributors, in order to compel compliance with maximum-price regulations. The complaints were upgrading and also "plain and simple overcharging."

Particularly in recent months, however, the most prominent quality changes have been those inspired either directly or indirectly by

[12] See American Metal Market, July 10 and August 2, 1941, and OPA Release Nos. OPA-5 (June 16, 1942), PM-645 (June 30, 1941), and PM-1608 (November 19, 1941).

[13] See Wall Street Journal, August 29, 1942 and OPA Release Nos. PM-1021 (August 27, 1941), OPA-324 (July 24, 1942), OPA-257 (July 14, 1942), and OPA-662 (September 3, 1942).

orders of the Office of Price Administration and War Production Board. Thus, restrictions on the use of tin have given rise to the substitution of glass, wood, fibers, and plastics in containers for foods, paints, petroleum, and other commodities. Shortages have likewise resulted in the substitution of plywood for steel even in such products as freight cars and lifeboats and in the substitution of cotton or other fibers for burlap in the manufacture of bags for packaging agricultural commodities. On specific order by the War Production Board, steel wheels requiring no rubber will eliminate rubber tires from tractors, combines, and other farm machinery. Similarly, the variety in size and type of product has been ordered reduced for numerous machines, machine tools, hand tools (such as spades and shovels), incandescent lamps, and many other products.

Clearly, many of the quality changes required by Federal orders governing the conservation of strategic materials result in increased, rather than reduced, expenses for producers. In either case an effort is ordinarily made by price officials to adjust ceiling schedules to these resulting changes in costs. Nevertheless, it is seldom possible—nor is it intended in a war economy—to compensate consumers of the products concerned for reduced efficiency. A case in point is the elimination of rubber tires from tractors, which results in seriously lowering their effective power.

Discontinuance of Cheaper Lines and Services

The "economies" currently introduced in merchandising and pricing policies are numerous and varied and often effectively succeed in raising costs for purchasers without a nominal change in price. In some cases these practices are clear violations of the intent of OPA regulations; in others they are reflections of the general husbanding of goods and services necessary in a war economy. In consumer-goods markets such practices as the discontinuance of cheaper lines and the withdrawal of formerly "free" services are to be particularly noted, though analogous practices are also important in markets for certain industrial commodities. For example, Boston manufacturers of women's low-priced shoes have discontinued sale of $2 models in favor of those selling at $3. Men's $1 shirts have been largely replaced by those retailing at $1.69 or more. Unbranded sheets and pillowcases, used by retailers as "sales" items, have been largely eliminated in favor of the exclusive sale of branded products at higher prices. Laundries in some areas have withdrawn cheaper types of services, such as "thrift," "economy," or wet-wash lines.

Frequently such substitutions evolve into rather obvious attempts to evade the effects of OPA ceilings. Thus, numerous "new" products are created selling at higher prices than those produced when maximum price regulations were originally issued. This has been particularly true in the textile industry, where newly created weaves (for men's and women's clothing, household decorations, etc.) have been used to justify higher prices under OPA formulas for setting maxima for such products. Partly because of this practice, OPA orders have been issued for some industries limiting the number of new products which may be created during the various selling seasons.[14]

Withdrawals of various services ordinarily rendered in connection with the sale of goods have been most frequent on the retail level but

[14] See, for example, OPA Release Nos. OPA-223 (July 8, 1942), on woven decorative fabrics, OPA-298 (July 17, 1942), on soap, and OPA-181 on men's and boys' summer clothing.

have not been confined exclusively to these markets. In many cases, however, these economies have been viewed with approval and have often been actively encouraged by Government officials; while eliminating "frills," they have also resulted in saving goods and services which could be put to better use for more essential wartime purposes.[15] Thus, several important retailers have eliminated or curtailed c. o. d. orders. Free deliveries have also been eliminated or reduced in number, as well as gift wrapping, the refunding of telephone charges, and the "lay-away" system. Similarly, numerous economies in packaging have occurred both at retail and wholesale. Four shirts instead of two or three are now packed in a single box, one dozen pairs of hose instead of three or six pairs, etc. Many of these changes, particularly at retail, have been recommended by the OPA in order to help reduce overhead, since some retailers (such as sellers of hardware) are faced with a sharply declining volume of merchandise because of WPB supply restrictions.

Controls by Office of Price Administration

As frequently noted in the previous discussion, the OPA has by no means ignored the existence of indirect methods for increasing prices. Gradually, many hidden price increases have been effectively halted and numerous actions recently taken were directed toward their further restriction. Some of these orders have been discussed or noted in preceding paragraphs. Thus, the imposition of extra charges, premiums, or withdrawal of customary discounts without authorization, have been prohibited with specific reference to the devices used in the sales of particular commodities such as brass ingots, waste paper, paraffin wax, farm machinery, coffee, cocoa, and many others of wide variety. Orders have likewise been issued prohibiting the unauthorized shifting of transportation costs, and the payment of unauthorized "commissions" to brokers and jobbers. Orders designed to check needless quality changes or to adjust prices for required changes in quality have been issued for a long list of commodities, including such diverse products as fabrics, soap, and farm machinery.

On the other hand, the control problem inherent in the effective elimination of hidden price increases is tremendous. The necessary distinctions between unjustified indirect increases, those which may be considered unavoidable (such as the ones resulting from changes in the raw materials available, in transportation costs, in extra expenses traceable to new specifications, etc.), and those which may be regarded as desirable in the interests of economy, are often nebulous and for administrative purposes highly difficult to define. Moreover, the determination of prevailing prices or of adequate price ceilings in an industrial price structure as complex as that for steel, or of quality standards applicable to such commodities as furniture, pose technical tasks of formidable magnitude. A considerable problem is presented in the mere number and variety of indirect price changes in markets swept by the demands of war. The record of the Office of Price Administration thus far—and particularly in recent months—demonstrates a gradually expanding effort to solve these problems, and to eliminate or at least to circumscribe the major types of indirect increases in price.

[15] Thus, Price Administrator Henderson recently declared: "* * * there are many services given by stores which are not essential; in fact, are not even desirable under wartime conditions. It is these superficial services—hold-overs from pre-war days—that can and should be eliminated" (New York Times, September 22, 1942).

ESTIMATED EMPLOYMENT OF FACTORY WAGE EARNERS, BY SEX, APRIL 1941 AND APRIL 1942[1]

Summary

ESTIMATES prepared by the Bureau of Labor Statistics indicate that by April 1942 approximately 11.7 million wage earners were employed in manufacturing establishments, an increase of 1.5 million (14.6 percent) over the April 1941 level. This marked increase was not, however, shared proportionately by both male and female employees. During this 1-year period, male factory workers increased by 15.9 percent (1,254,000 workers), whereas female employment increased by 10.1 percent (233,000 employees). The greater relative gain in the employment of males caused the proportion of females to decrease from 22.6 percent to 21.7 percent of all factory wage earners in April 1941 and April 1942, respectively.

As was to be expected, the mass conversion of industries from peacetime to war production, during the initial stages of the war effort, required the employment of highly skilled and semiskilled labor. At the time, there were still large numbers of men unemployed or disemployed because of plant shut-downs resulting from priorities and other related causes. As these new and converted plants began actual production activities, former employees were rehired and many men shifted from low-paid industries to the higher-paid war industries. Simultaneously, the demands of the armed forces began to drain male workers from the factories. In many local areas, labor shortages became more apparent. As the labor supply of men becomes exhausted, it will become more and more necessary to divide the more difficult jobs into their component operations and to train women to perform many of these operations. In the expansion of the so-called "heavy industries," which require male employees, it is expected that many of the additional men will come from the less-essential consumer-goods industries where their jobs can more readily be filled by women.

By mid-April 1942, there had been no marked general increase in the employment of woman factory workers. Three nondurable-goods industry groups—textiles, food manufactures, and chemicals and petroleum—accounted for approximately 40 percent of the total increase in the employment of women. Other industries in which outstandingly greater numbers of women were found were the manufacture of electrical machinery and of transportation equipment. In the nonferrous-metals industry, however, their number declined.

All States except Michigan shared in the increased factory employment during the year. Employment increased in all sections of the country, but the Pacific States, with a gain of 51 percent, had the lead. The war is gradually shifting the concentration of industrial employment from the East to the West and South Central regions.

These estimates of employment are based on voluntary reports submitted to the Bureau of Labor Statistics from a large number of cooperating employers. The ratios of male and female employment in April 1942 are based on a sample of over 31,000 establishments employing approximately 6,900,000 wage earners. The April 1941 ratios are based on reports from over 24,000 firms, employing 5,000,000 wage earners in April 1942, which had also submitted reports for April 1941.

[1] Prepared in the Bureau's Division of Employment Statistics, by A. H. Ayeroff.

Employment of Men and Women, by Industry Groups

About 40 percent of the increased employment of women was found in the textile, food, and chemicals and petroleum industries (table 1). Other large increases occurred in electrical machinery (20,000) and transportation equipment (21,000). The employment of women in the transportation-equipment group increased by 75 percent over the April 1941 level, owing to increased employment of women in the expanding aircraft industry. Other large relative increases occurred in chemicals and petroleum (52 percent), lumber (38 percent), machinery, except electrical (30 percent), and furniture (19 percent). In the nonferrous-metals industries the number of women employed in April 1942 was actually less than the number employed in April 1941, although the number of men increased by 27,000. In the rubber industries both male and female employment declined as a result of curtailed production of civilian goods.

TABLE 1.—*Estimated Employment of Factory Wage Earners, by Major Industry Group* [1] *and by Sex, April 1941 and April 1942* [2]

[Figures for number employed are given in thousands]

Industry Group	April 1941				April 1942				Percent of change in employment, April 1941 to April 1942		
	Total	Men	Women	Percent of women	Total	Men	Women	Percent of women	Total	Men	Women
Total manufacturing	10,211	7,902	2,309	22.6	11,698	9,156	2,542	21.7	+14.6	+15.9	+10.1
Durable goods											
Iron and steel and their products	1,375	1,279	96	7.0	1,523	1,412	111	7.3	+10.8	+10.5	+15.4
Machinery (except electrical)	821	775	46	5.6	1,016	956	60	5.9	+23.8	+23.4	+30.2
Electrical machinery	407	278	129	31.6	506	357	149	29.5	+24.2	+28.1	+15.7
Transportation equipment	1,054	1,025	29	2.7	1,572	1,522	50	3.2	+49.2	+48.5	+75.3
Nonferrous metals and their products	333	277	56	16.7	358	304	54	15.2	+7.7	+9.7	−2.1
Lumber and allied products	483	475	8	1.6	498	487	11	2.2	+3.1	+2.5	+37.7
Furniture and allied products	375	342	33	8.7	376	337	39	10.3	+.3	−1.4	+19.1
Stone, clay, and glass products	354	306	48	13.6	367	314	53	14.5	+3.6	+2.5	+10.4
Nondurable goods											
Textiles and their products	2,141	933	1,208	56.4	2,179	929	1,250	57.4	+1.8	−.5	+3.6
Leather and its manufactures	374	222	152	40.6	383	223	160	41.7	+2.6	+.6	+5.6
Food and kindred products	835	644	191	22.9	913	703	210	23.0	+9.3	+9.2	+9.8
Tobacco manufactures	92	31	61	66.7	93	31	62	66.7	+1.3	+1.1	+1.3
Paper and printing	632	494	138	21.7	643	499	144	22.4	+1.7	+.9	+4.6
Chemicals, petroleum, and coal products	510	460	50	9.8	612	536	76	12.4	+20.1	+16.7	+52.0
Rubber products	151	108	43	28.5	138	99	39	28.1	−8.8	−8.3	−10.1

[1] The industrial distributions, for the most part, are based on the regular peacetime activities of the reporting establishments and do not reflect the conversion to war products.

[2] The estimates of total employment of factory wage earners in April 1941 and April 1942 are not comparable with previously released estimates of the Bureau of Labor Statistics. These estimates are based on the Bureau's index of factory employment adjusted to levels derived from data reported by employers under the State unemployment-compensation programs, made available by the Bureau of Employment Security of the Social Security Board. Because of the omission of certain miscellaneous industries and since some of the major industry groups are subject to further revision, the sum of the group will not equal the total manufacturing estimates.

Geographical Distribution of Employment

All States [2] except Michigan showed an increase in the employment of factory wage earners during the year ending April 1942 (table 2). In Michigan the curtailed activities in automobile plants during the period of conversion caused the employment decline. The largest relative increases occurred in those States in which war industries were centered, such as Kansas (60 percent), Colorado (56 percent), California (54 percent), Oregon (48 percent), Washington (41 percent), Nebraska (40 percent), Alabama (37 percent), and Maryland (31 percent). It should be noted that in many of the States in which large increases have occurred in factory employment, agriculture had held an important place in the industrial economy of the State prior to 1941.

By April 1942 the war had already affected the geographical distribution of factory wage earners. Although employment increased in all regions of the country, the relative changes varied from 8 percent in the East North Central States to 51 percent for the Pacific States. The percent of total factory wage earners employed in the New England, Middle Atlantic, East North Central, and South Atlantic States decreased from April 1941 to April 1942. The percentage distributions for April 1941 and April 1942 for the various geographical regions are given in the accompanying statement.

	April 1941	*April 1942*
New England	12.3	11.9
Middle Atlantic	28.6	28.0
East North Central	28.4	26.8
West North Central	4.5	4.8
South Atlantic	12.0	11.8
East South Central	4.6	4.9
West South Central	3.2	3.4
Mountain	.7	.9
Pacific	5.7	7.5
United States	100.0	100.0

In almost half of the States the ratio of female to total employment decreased slightly from April 1941 to April 1942 as a result of the proportionately greater increase in the employment of men. In April 1942, the ratios of females to total varied from 36.0 percent in Rhode Island to 5.4 percent in Washington. In 8 other States (in addition to Rhode Island)—Georgia, Massachusetts, Missouri, New Hampshire, New York, North Carolina, South Carolina, and Virginia—approximately 3 out of every 10 employed wage earners in April 1942 were women. This proportion is indicative of the minimum potential ratio of female employment in manufacturing industries which may be expected as the need for additional workers continues.

More than half of the total increase in female employment occurred in six leading industrial States—New York (26,200), New Jersey (23,300), Ohio (20,400), Illinois (18,500), California (16,200), and Pennsylvania (15,200). The largest relative increase occurred in

[1] Since manufacturing employment in Arizona, District of Columbia, Idaho, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah, and Wyoming is slight and the estimates by sex are based on small samples, the data for these 10 States have been combined. These estimates indicate, however, that factory employment decreased in Idaho and Montana.

Colorado where female employment doubled over the year period. Other large relative increases are shown for Nebraska (70 percent), Iowa (49 percent), Arkansas (45 percent), Kansas (40 percent), and Oregon (36 percent). The only significant decreases were reported in Michigan and Virginia.

TABLE 2.—*Estimated Employment of Factory Wage Earners, by State and by Sex, April 1941 and April 1942*[1]

[Figures for number employed are given in thousands]

State	April 1941				April 1942				Percent of change in employment		
									April 1941 to April 1942		
	Total	Men	Women	Percent of women	Total	Men	Women	Percent of women	Total	Men	Women
United States	10,211.0	7,902.0	2,309.0	22.6	11,698.0	9,156.0	2,542.0	21.7	+14.6	+15.9	+10.1
Alabama	169.9	140.6	29.3	17.3	232.8	195.2	37.6	16.1	+37.0	+38.8	+28.2
Arkansas	50.1	43.2	6.9	13.7	57.5	47.5	10.0	17.4	+14.9	+10.0	+45.4
California	388.1	330.4	57.7	14.9	597.3	523.4	73.9	12.4	+53.9	+58.4	+28.1
Colorado	26.9	23.7	3.2	11.8	41.8	35.4	6.4	15.4	+55.5	+49.2	+102.1
Connecticut	335.0	235.9	99.1	29.6	393.1	284.0	109.1	27.7	+17.3	+20.4	+10.0
Delaware	29.8	25.4	4.4	14.6	33.4	28.1	5.3	15.9	+12.0	+10.3	+21.7
Florida	63.5	51.2	12.3	19.3	68.4	55.6	12.8	18.7	+7.8	+8.6	+4.4
Georgia	193.2	126.9	66.3	34.3	269.6	142.1	67.5	32.2	+8.5	+12.0	+1.8
Illinois	767.4	598.7	168.7	22.0	843.4	656.2	187.2	22.2	+9.9	+9.6	+11.0
Indiana	369.8	312.9	56.9	15.4	412.7	349.4	63.3	15.3	+11.6	+11.7	+11.2
Iowa	77.4	65.8	11.6	15.0	95.9	78.5	17.4	18.1	+23.9	+19.4	+49.4
Kansas	43.5	39.1	4.4	10.1	69.4	63.3	6.1	8.8	+59.7	+61.9	+39.9
Kentucky	80.6	62.3	18.3	22.6	86.5	63.6	22.9	26.4	+7.2	+1.9	+25.2
Louisiana	83.2	72.3	10.9	13.1	100.9	88.5	12.4	12.3	+21.2	+22.3	+13.4
Maine	97.7	69.1	28.6	29.3	125.7	93.2	32.5	25.8	+28.6	+34.9	+13.6
Maryland	185.8	144.8	41.0	22.0	243.9	195.3	48.6	19.9	+31.2	+34.8	+18.6
Massachusetts	586.0	404.1	181.9	31.1	628.0	436.0	192.0	30.6	+7.2	+7.9	+5.5
Michigan	725.2	654.0	71.2	9.8	688.0	622.1	65.9	9.6	−5.1	−4.9	−7.5
Minnesota	94.5	77.8	16.7	17.7	113.3	94.1	19.2	17.0	+19.9	+21.0	+14.8
Mississippi	58.1	46.2	11.9	20.5	68.3	53.6	14.7	21.6	+17.5	+15.9	+23.9
Missouri	209.6	146.3	63.3	30.2	240.8	168.2	72.6	30.2	+14.9	+15.0	+14.8
Nebraska	21.7	18.2	3.5	15.9	30.5	24.6	5.9	19.3	+40.2	+34.5	+70.2
New Hampshire	68.2	44.5	23.7	34.8	71.6	47.4	24.2	33.8	+5.0	+6.6	+2.1
New Jersey	602.9	445.2	157.7	26.2	687.1	506.1	181.0	26.3	+14.0	+13.7	+14.8
New York	1,240.2	856.9	383.3	30.9	1,389.0	979.5	409.5	29.5	+12.0	+14.3	+6.8
North Carolina	325.5	218.7	106.8	32.8	346.8	231.2	115.6	33.3	+6.5	+5.7	+8.2
Ohio	793.6	677.1	116.5	14.7	910.9	774.0	136.9	15.0	+14.8	+14.3	+17.5
Oklahoma	34.5	31.6	2.9	8.4	39.7	36.1	3.6	9.0	+15.2	+14.4	+24.1
Oregon	76.8	70.7	6.1	8.0	113.8	105.4	8.4	7.4	+48.1	+49.2	+36.3
Pennsylvania	1,076.5	827.4	249.1	23.1	1,206.8	942.5	264.3	21.9	+12.1	+13.9	+6.1
Rhode Island	137.3	87.1	50.2	36.6	141.6	90.7	50.9	36.0	+3.1	+4.1	+1.5
South Carolina	156.3	107.5	48.8	31.2	166.2	110.2	56.0	33.7	+6.4	+2.6	+14.8
Tennessee	163.5	120.1	43.4	26.5	180.9	131.9	49.0	27.1	+10.6	+9.8	+12.9
Texas	154.6	136.4	18.2	11.8	201.4	179.4	22.0	10.9	+30.3	+31.5	+20.9
Vermont	27.8	24.0	3.8	13.7	32.5	28.3	4.2	12.9	+16.8	+17.8	+10.6
Virginia	162.6	100.2	62.4	38.4	190.8	134.3	56.5	29.6	+17.3	+34.0	−9.4
Washington	121.4	114.0	7.4	6.1	171.3	162.0	9.3	5.4	+41.1	+42.1	+26.5
West Virginia	96.6	82.0	14.6	15.1	109.8	93.1	16.7	15.2	+13.7	+13.6	+14.4
Wisconsin	251.8	210.1	41.7	16.6	280.7	235.4	45.3	16.1	+11.5	+12.1	+8.5
All other States[2]	63.9	59.6	4.3	6.7	75.9	70.6	5.3	7.0	+18.8	+18.5	+23.3

[1] The State estimates of total employment of factory wage earners in April 1941 and April 1942 are based on the Bureau of Labor Statistics unpublished series of factory employment which has been adjusted to levels derived from data reported by employers under the State unemployment-compensation programs, made available by the Bureau of Employment Security of the Social Security Board.

[2] Includes Arizona, District of Columbia, Idaho, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah, and Wyoming.

STABILIZATION OF COST OF LIVING BY WAGE AND PRICE CONTROL

THE President, on October 3, 1942, appointed Mr. Justice James F. Byrnes of the United States Supreme Court to be Director of Economic Stabilization. At the same time he issued an Executive order which gave the Director sweeping authority to control civilian purchasing power and stabilize farm prices, urban and rural rents, and wages and salaries paid in industry. A board was also created to assist the Director in preventing any further inflationary rise in living costs.

These actions followed immediately after the passage of an anti-inflation law by Congress, amending the Emergency Price Control Act of 1942, and directing the President to issue, on or before November 1, a general order stabilizing prices, wages, and salaries, on the basis of the levels of September 15, 1942. However, the President was authorized thereafter to make adjustments in prices and wages in order to aid in the effective prosecution of the war or to correct gross inequities. The law specified restrictions on the prices which may be established for agricultural products, and prohibited reduction of wages for any particular work below those paid therefor between January 1 and September 15, 1942.

The Executive order, putting the new legislation into effect, forbade any wage increases above the level of September 15, 1942, and any decreases below the highest wage paid between January 1 and September 15, 1942, unless approved by the National War Labor Board. Such changes may be approved by that Board only when "necessary to correct maladjustments or inequalities, to eliminate substandards of living, to correct gross inequities, or to aid in the effective prosecution of the war." The order extended the jurisdiction of the War Labor Board to all industries and employees, instead of only to those involved in a labor dispute.

Increases in salaries below $5,000 a year were permitted by the order, but no increases in salaries above this amount may be made without the approval of the Director of Economic Stabilization, except where "an individual has been assigned to more difficult or responsible work." As in the case of wages, salaries may not be decreased below the highest rate paid between January 1 and September 15, 1942. The director was also authorized to fix a salary limit of $25,000 after payment of taxes, but with due allowance for life-insurance premiums and "fixed obligations heretofore incurred."

The order required prices of raw and processed agricultural commodities to be stabilized as far as practicable at levels of September 15, 1942, and in conformity with the standards established in the new

law. To effectuate this policy, the President in two letters to Price Administrator Leon Henderson directed him to establish price ceilings on foods not previously controlled, and to freeze all rents throughout the Nation. He was also authorized to order reductions in rents "in such areas as you deem appropriate."

In accordance with the directive of the President, the Price Administrator immediately placed emergency price ceilings on virtually all food items previously exempt from price control. The emergency food ceilings froze, at the highest levels between September 28 and October 2, the prices charged by individual food retailers, wholesalers, and processors. The ceilings cover butter, cheese, evaporated and condensed milk, eggs, poultry, flour, dry onions, potatoes, fresh and canned citrus fruits and juices, dry edible beans, corn meal, and mutton. About 90 percent of the average family food budget is therefore covered by price control.

A few days after this order was issued, the Price Administrator extended rent control to the entire Nation. He designated 45 additional defense rental areas embracing every section of the country in which a ceiling had not previously been placed on rents. For these areas, the Administrator recommended that the ceilings be placed at the rents in effect March 1, 1942.

The Director of Economic Mobilization has issued comprehensive regulations for administrative control of all salary and wage adjustments.[1] Jurisdiction over wages is vested in the National War Labor Board, while control of salary adjustments is divided between the Board and the Bureau of Internal Revenue. Authority of the War Labor Board extends to all wage adjustments and all salary payments under $5,000 a year where the employee is represented by a labor union or is not employed in a bona fide executive, administrative, or professional capacity. The Bureau of Internal Revenue controls all salary payments above $5,000 a year and those below $5,000 not within the jurisdiction of the War Labor Board.

Act To Aid in Stabilizing Cost of Living

The act directs the President to issue on or before November 1, 1942, a general order stabilizing prices, wages, and salaries, affecting the cost of living, on the basis of the levels which existed on September 15, 1942, as far as practicable. However, the President may thereafter provide for making necessary adjustments. He is given authority to issue regulations necessary for carrying out the provisions of the act, to exercise any power conferred upon him by the act through such department, agency, or officer as he may direct, and to suspend the provisions of the Emergency Price Control Act of 1942 relating to maximum prices of agricultural commodities and the payment of compensation for personal services.

Under the act no common carrier or other public utility is allowed to make any general increase in its rates or charges which were in effect on September 15, 1942, unless it first gives 30 days' notice to the President or his designated agency, and consents to the intervention by such agency before the authority having jurisdiction to consider such increase.

[1] A summary of these regulations will appear in the December Monthly Labor Review.

CONTROL OF WAGES AND SALARIES

Under the act no employer shall pay, and no employee shall receive, wages or salaries in contravention of the regulations issued by the President. The President is directed to prescribe the extent to which any wage or salary payment made in contravention of such regulations shall be disregarded by governmental agencies in determining the costs or expenses of any employer for the purposes of any other law or regulation. The act does not prevent the reduction by any private employer of the salary of any employee receiving $5,000 or more per annum.

The terms "wages" and "salaries" include additional compensation, on an annual or other basis, paid to employees by their employers for personal services (excluding insurance and pension benefits in a reasonable amount to be determined by the President). However, for the purpose of determining wages or salaries for any period prior to September 16, 1942, such additional compensation shall be taken into account only in cases where it has been customarily paid by employers to their employees.

The President may limit or prohibit the payment of double time, except when, because of emergency conditions, an employee is required to work for 7 consecutive days in any regularly scheduled workweek.

However, no action with respect to wages or salaries can be taken under the act (1) which is inconsistent with the provisions of the Fair Labor Standards Act or the National Labor Relations Act, or (2) for the purpose of reducing the wages or salaries for any particular work below the highest wages or salaries paid for such work between January 1, 1942, and September 15, 1942. Nevertheless, the President may, without regard to the limitations contained in clause (2), adjust wages to the extent that he finds necessary in any case to correct gross inequities and also aid in the effective prosecution of the war.

PROVISIONS RELATING TO EMERGENCY PRICE-CONTROL ACT

All provisions (including prohibitions and penalties) of the Emergency Price Control Act of 1942, which are applicable with respect to orders or regulations under such act shall, insofar as they are not inconsistent with the provisions of this act, be applicable in the same manner and for the same purposes with respect to regulations or orders issued by the Price Administrator in the exercise of any functions which may be delegated to him under authority of this act. Nothing in the act is to be construed to invalidate any provision of the Emergency Price Control Act of 1942 except to the extent that such provisions are suspended by specific provisions of this act, or to invalidate any regulation, price schedule, or order issued or effective under such act.

AGRICULTURAL COMMODITIES

Maximum prices of agricultural commodities.—No maximum price shall be established for any agricultural commodity below a price which will reflect to producers the higher of the following prices, as determined by the Secretary of Agriculture: (1) The parity price for

such commodity or a comparable price, or (2) the highest price received by the producers of such commodity between January 1, 1942, and September 15, 1942. Similarly, no maximum price may be established for any commodity processed or manufactured from any agricultural commodity below a price which will reflect to the producers of such agricultural commodity a price equal to the higher of the two classes of prices.

Without regard to (2), the President may adjust the maximum price to the extent that he finds necessary to correct gross inequities, but not below a price which will reflect to agricultural producers the parity price specified in class 1. Modifications are to be made where necessary to increase production for war purposes or where the maximum price does not reflect increased costs. In fixing price maxima for agricultural commodities and for commodities processed or manufactured from agricultural commodities, adequate consideration must be given to farm labor.

Loans on agricultural commodities.—The Commodity Credit Corporation is authorized and directed to make loans on cotton, corn, wheat, rice, tobacco, and peanuts, harvested after December 31, 1941, and before the expiration of the 2-year period beginning with the first day of January immediately following the date upon which the President or Congress declares that hostilities in the present war have terminated. However, producers must not have disapproved marketing quotas for such commodity for the marketing year beginning in the calendar year in which such crop is harvested. Loans shall be made as follows:

(1) To cooperators (except those outside the commercial corn-producing area, in the case of corn) at the rate of 90 percent of the parity price for the commodity as of the beginning of the marketing year.

(2) To cooperators outside the commercial corn-producing area, in the case of corn, at the rate of 75 percent of the rate specified in (1) above.

(3) To noncooperators (except those outside the commercial corn-producing area, in the case of corn) at the rate of 60 percent of the rate specified in (1) above and only on so much of the commodity as would be subject to penalty if marketed.

All provisions of law applicable with respect to loans under the Agricultural Adjustment Act, unless inconsistent with provisions of this law, are applicable with respect to loans under the new legislation. The loan rate as specified in (1) above may be adjusted by the President at a rate below the present 90 percent rate and not less than the former 85 percent rate, if he determines that the loan rate so fixed is necessary to prevent an increase in the cost of feed for livestock and poultry and to aid in the effective prosecution of the war.

The act also increased the rate of parity loans on nonbasic commodities, where increased production is required for war purposes, from 85 to 90 percent.

OTHER PROVISIONS

Penalties.—Any individual, corporation, partnership, or association willfully violating any provision of the act, or of any regulation promulgated thereunder, shall, upon conviction, be subject to a fine of

not more than $1,000, or to imprisonment for not more than 1 year, or to both such fine and imprisonment.

Term of act.—The provisions of the act, except those relating to the Commodity Credit Corporation, and all regulations thereunder, will terminate on June 30, 1944, or on such earlier date as the Congress or the President may prescribe. The termination date of the Emergency Price Control Act was also extended to June 30, 1944.

Executive Order Controlling Wages and Prices

The Executive order, issued on October 3, 1942, established in the Executive Office of the President an Office of Economic Stabilization headed by an Economic Stabilization Director. An Economic Stabilization Board was also established, consisting of the Secretary of the Treasury, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the Chairman of the Board of Governors of the Federal Reserve System, the Director of the Bureau of the Budget, the Price Administrator, the Chairman of the National War Labor Board, and two representatives each of labor, management, and farmers, appointed by the President. The Director is to advise and consult with this Board. He may also invite for consultation the head of any other department or agency. The Director is to serve as Chairman of the Board.

Powers of Director.—The Director, with the approval of the President, is to formulate and develop a comprehensive national economic policy relating to the control of civilian purchasing power, prices, rents, wages, salaries, profits, rationing, subsidies, and all related matters—all for the purpose of preventing avoidable increases in the cost of living, cooperating in minimizing the unnecessary migration of labor from one business, industry, or region to another, and facilitating the prosecution of the war. To give effect to this comprehensive national economic policy the Director is authorized to issue directives on policy to the Federal departments and agencies concerned.

The guiding policy of the Director and of all departments and agencies of the Government shall be that of stabilizing the cost of living in accordance with the act of October 2, 1942. The administration of activities related to the national economic policy will remain with the departments and agencies now responsible for such activities, but such administration must conform to the directives issued by the Director.

WAGES AND HOURS

Stabilization of wages and salaries.—The order provides that no increases in wage rates, granted as a result of voluntary agreement, collective bargaining, conciliation, arbitration, or otherwise, and no decreases in wage rates, shall be authorized unless notice of such increases or decreases shall have been filed with the National War Labor Board, and unless the Board has approved such increases or decreases. The Board shall not approve any increase in the wage rates prevailing on September 15, 1942, unless the increase is necessary to correct maladjustments or inequalities, to eliminate substandards of living, to correct gross inequities, or to aid in the effective prosecution of the war. However, where the Board or the Price Administrator

believes that a proposed wage increase will require a change in the price ceiling of the commodity or service involved, such proposed increase, if approved by the Board, shall become effective only if approved by the Director.

The National War Labor Board is directed not to approve a decrease in the wages for any particular work below the highest wages paid therefor between January 1, 1942, and September 15, 1942, except to correct gross inequities and to aid in the effective prosecution of the war. By general regulation, the Board is to make such exemptions from the provisions of the order in the case of small total wage increases or decreases as it deems necessary for the effective administration of the order.

No increases in salaries now in excess of $5,000 per year (unless the individual has been assigned to more difficult or responsible work) shall be granted until otherwise determined by the Director. No decrease shall be made in the salary for any particular work below the highest salary paid therefor between January 1, 1942, and September 15, 1942, except to correct gross inequities and to aid in the effective prosecution of the war.

The Director is authorized to take the necessary action, and to issue the appropriate regulations, so that, insofar as practicable, no salary shall be authorized over $25,000, after the payment of Federal income taxes. However, such regulations shall make due allowance for the payment of life-insurance premiums on policies heretofore issued, and required payments on fixed obligations previously incurred, and shall make provision to prevent undue hardship.

Any wage or salary payment made in contravention of the purposes and provisions of the act and the Executive order shall be disregarded by Federal agencies when calculating costs for purposes of taxation, price ceilings, or contracts.

Salaries and wages under the order include all forms of direct or indirect remuneration to an employee or officer for work or personal services performed for an employer or corporation, including bonuses, additional compensation, gifts, commissions, fees, and any other remuneration in any form or medium whatsoever (excluding insurance and pension benefits in a reasonable amount as determined by the Director). However, for the purpose of determining wages or salaries for any period prior to September 16, 1942, additional compensation shall be taken into account only in cases where it has been customarily paid by employers to their employees. "Salaries" as used in the order means remuneration for personal services, regularly paid on a weekly, monthly, or annual basis.

Administration of wage and hour policy.—Except as modified by the Executive order of October 3, 1942, the National War Labor Board is to continue to perform the duties and follow the procedures specified in Executive Order No. 9017; and its functions are extended to cover all industries and all employees. The wage policies stated in the order and the directives issued by the Director are to be carried out by the Board. It is further authorized to issue such rules and regulations as may be necessary for the speedy determination of the propriety of any wage increases or decreases, and to avail itself of the services of State and Federal departments and agencies.

COLLECTIVE BARGAINING AND COLLECTIVE AGREEMENTS

The policy of the Federal Government as established in Executive Order No. 9017 of January 12, 1942, to encourage free collective bargaining between employers, is reaffirmed and continued.

No provision with respect to wages contained in any labor agreement between employers and employees (including the shipbuilding-stabilization agreements and the wage-stabilization agreement of the building-construction industry) which is inconsistent with the policy stated in the order or hereafter formulated by the Director, shall be enforced, except with the approval of the National War Labor Board. The Board shall permit the Shipbuilding Stabilization Committee and the Wage Adjustment Board for the Building Construction Industry to continue to perform their functions, except insofar as any of them is inconsistent with the terms of the order.

AGRICULTURAL COMMODITIES

The prices of agricultural commodities and of commodities manufactured or processed in whole or in substantial part from any agricultural commodity are required to be stabilized, so far as practicable, on the basis of levels which existed on September 15, 1942. In establishing, maintaining, or adjusting maximum prices, appropriate deductions must be made from parity prices or comparable prices for payments made under the Soil Conservation and Domestic Allotment Act, parity payments made under the Agricultural Adjustment Act, and Government subsidies.

Subject to directives on policy, the price of agricultural commodities is to be established or maintained or adjusted jointly by the Secretary of Agriculture and the Price Administrator, and any disagreement between them shall be resolved by the Director. The price of any commodity manufactured or processed in whole or in substantial part from an agricultural commodity shall be established or maintained or adjusted by the Price Administrator.

OTHER PROVISIONS

Profits and subsidies.—The Price Administrator in fixing, reducing or increasing prices is required to determine price ceilings in such a manner that unreasonable or exorbitant profits will be prevented.

If necessary to insure maximum essential production to maintain ceiling prices, or to prevent a price rise inconsistent with the purposes of the order, the Director may require the Department of Agriculture, the Department of Commerce, the Reconstruction Finance Corporation, or any other department or agency to use its authority to subsidize or to purchase commodities for resale.

Relations with other agencies.—The order authorizes the Director to utilize the information, data, and staff services of other Federal departments and agencies which have activities or functions related to national economic policy. All such Federal departments and agencies must supply available information, data, and services required by the Director in discharging his responsibilities.

The Director may perform the functions and duties, and exercise his powers, authority, and discretion through such officials or agencies and in such manner as he may determine. The Director, if he deems it

necessary, may direct that any policy formulated under this order shall be enforced by any other department or agency under any other power or authority which may be provided by any Federal law.

Effect on other laws.—Nothing in the order is to be construed as affecting the present operation of the Fair Labor Standards Act, the National Labor Relations Act, the Walsh Healey Act, the Davis-Bacon Act, or the adjustment procedure of the Railway Labor Act.

Public utilities.—Notice of any increase in the rates or charges of common carriers as provided in the act of October 2, 1942, must be sent to the Director.

SUSPENSION OF 8-HOUR LAW ON CAA CONSTRUCTION

THE President by Executive order of October 3, 1942, suspended the 8-hour law as it affects laborers and mechanics on construction projects for the Civil Aeronautics Authority. This action he declared to be necessary for the successful prosecution of the war.

Under the 8-hour law, mechanics and laborers on public works could not be employed for more than 8 hours in any 1 day, except in case of extraordinary emergency. Where such men work more than 8 hours, as permitted by the Executive order, they must be paid time and a half for overtime.

WOMAN'S POLICY COMMITTEE FOR MOBILIZATION OF WOMAN WORKERS

A WOMAN'S Policy Committee has been appointed by Paul V. McNutt, Chairman of the War Manpower Commission, to consider important policies in the Commission's program for the recruiting and training of woman workers. This committee will cooperate with the Management-Labor Policy Committee of the Commission, on which industry and labor have equal representation, and which advises the Chairman on matters of manpower policy.

The chairman of the new committee is Miss Margaret A. Hickey, owner and director of a school for secretaries in St. Louis and also vice president of the National Federation of Business and Professional Women's Clubs. Other members of the Committee are as follows:

Mrs. Dorothy Bellanca, Amalgamated Clothing Workers of America, New York, N. Y.
Miss Jenny Matyas, International Ladies' Garment Workers Union, San Francisco, Calif.
Miss Bess Bloodworth, vice president in charge of personnel, Namm Store, Brooklyn, N. Y.
Mrs. Harris T. Baldwin, vice president, National League of Women Voters, Washington, D. C.
Mrs. Lewell Hobart, past national president, American Legion Auxiliary, Cincinnati, Ohio.
Mrs. Beatrice Gould, editor, Ladies' Home Journal, Philadelphia, Pa.
Mrs. Blanche M. Ralston, until recently regional supervisor of service programs for Region III of the WPA, Coahoma, Miss.
Mrs. Sadie Orr Dunbar, director, Oregon Tuberculosis Association, Portland, Oreg.
Mrs. Gladys Talbott Edwards, director, Junior Department, Farmers Union, Jamestown, N. Dak.
Mrs. Maudelle Bousfield, principal, Wendell Phillips High School, Chicago, Ill.
Miss Ruth Allen, University of Texas, Austin, Tex.

The War Manpower Commission plans to give women increasing opportunities to assist in the program for utilizing women in war work. Women are already being employed in many of the planning and operating divisions of the Commission, and it is contemplated that more will be appointed.

PREVENTION OF COAL-MINE STRIKES IN NEW SOUTH WALES[1]

REGULATIONS have been issued under the Australian National Security Act of 1939–40 to prevent work stoppages in the coal mines of New South Wales. The latest statutory rule (1942, No. 328) of July 25, 1942, forbids workers to strike or to continue on strike in any coal mine, unless such action is taken in conformity with a decision of the duly constituted governing body of the employee organization to which the person belongs. Employers are forbidden to make any changes in working customs, practices, and conditions of production, unless the alterations are given prior approval by the Commonwealth Coal Commissioner or Reference Board. Failure of workers to comply with the requirement that strikes shall be authorized by the proper authority or of employers to comply with orders of the Coal Commission or Reference Board constitutes a breach of the National Security Act. All disputes as to rates of pay and industrial conditions must be decided by the appropriate tribunals and any person who fails to comply with decisions is likewise guilty of a breach of the National Security Act.

The Prime Minister of Australia met with mine labor officials on July 21 to discuss means of putting an end to work stoppages in the industry. On the following day he announced that his proposals had been accepted unanimously by the delegates and that they would be included in the statutory rules to be prepared by the Attorney General, of which the main features are given above.

Previously a statutory rule (1942, No. 168) had been issued in May. Under the terms of the earlier regulations a striking miner—one on strike without authority from the Miners' Federation or the local management committee of the appropriate miners' organization—lost his exemption from draft for service in the Army or the Army Labor Corps. The loss of the exemption applied, regardless of whether or not the miner returned to work. Enforcement of the rule was not favored by mine operators, as it was realized that workers who were called to military duty could not be replaced, owing to the labor shortage. Therefore the provision was suspended during conferences held by the Prime Minister with employers and employees in June. As a result of the conference a "peace code" was adopted. Under the code, provision was made for establishing "pit-top committees," having equal numbers of employer and employee members. The powers of the committees were to be advisory only but furnished employees with a voice in management matters. When it was found that strikes continued under the "peace code" plan, unauthorized strikes were outlawed in July.

[1] Information from report of Randolph A. Kidder, Secretary of American Legation, Canberra, Australia.

Employment and Labor Conditions

SOURCES OF LABOR SUPPLY IN WEST COAST SHIPYARDS AND AIRCRAFT-PARTS PLANTS[1]

WEST COAST ship-construction yards and aircraft-parts plants recruited the workers hired during June 1942 from many other industries. The nonmanufacturing group furnished more workers than manufacturing. Most of the recruits had had previous jobs nearby, but a significant proportion came from Midwestern and Mountain States. One-sixth of the workers hired by shipyards were under 20 years of age; the proportion in this age group was somewhat lower among accessions in aircraft-parts plants.

Scope and Method of Study

A study of recent accessions in west coast ship-construction yards and aircraft-parts plants was undertaken by the Bureau of Labor Statistics at the request of the Labor Production Division of the War Production Board. Representative ship-construction yards were selected in four important areas: Seattle, Portland–Vancouver, San Francisco, and Los Angeles. The aircraft-parts plants studied were limited to those in the Los Angeles area. Data were obtained on the age; marital status; color; occupation, industry, and location of last previous employment; and present occupation for the workers hired during June 1942.

Industry of Previous Employment

Almost two-fifths (37.2 percent) of the workers hired by all the shipyards studied as a group had been working in other manufacturing industries, and 14 percent came from other shipyards (table 1). It may be noted, however, that approximately a third of all the workers reported as recruited from other shipyards were, in reality, employees shifted between two yards operated by the same company, and were doubtless transferred by an arrangement of the management. This situation accounts for about two-thirds of the interyard transfers in the Portland–Vancouver area.

Wholesale and retail trade establishments constituted the most important single source of workers recruited from nonmanufacturing industries. Nearly 5 percent of the total were formerly employed in various agencies of the Federal Government; less than 3 percent were unemployed at the time they were hired for work in the shipyards. The substantial number of students hired is probably explained in part by temporary employment during the summer.

[1] Prepared in the Bureau's Division of Wage Analysis by Toivo P. Kanninen, under the direction of Louis M. Solomon. A preliminary report on a portion of the survey appeared in the Monthly Labor Review, October 1942 (p. 735).

TABLE 1.—*Industry of Previous Employment of Workers Hired by West Coast Shipyards and Aircraft-Parts Plants, by Area, June 1942*

Industry	Percent of total accessions from specified industries					
	Ship construction					Aircraft parts: Los Angeles
	Total: West coast	Seattle	Portland-Vancouver	San Francisco	Los Angeles	
Total accessions:						
Number	4,280	593	1,860	1,135	692	1,524
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Manufacturing	37.2	39.5	42.9	26.6	37.1	38.1
Iron and steel	4.2	5.1	4.8	2.2	5.2	2.1
Blast furnaces, steel works, etc	2.2	1.2	2.6	1.4	3.2	.5
Other iron and steel	2.0	3.9	2.2	.8	2.0	1.6
Machinery, except transportation	2.3	2.8	2.2	.9	4.2	5.3
Foundries and machine shops	1.2	2.5	1.0	.4	2.0	1.6
Other machinery	1.1	.3	1.2	.5	2.2	3.7
Transportation equipment	15.9	17.5	18.3	13.0	13.0	14.6
Aircraft	1.4	2.7	.6	.6	3.9	12.8
Shipbuilding	14.0	14.6	17.6	11.9	7.1	.3
Other transportation equipment	.5	.2	.1	.5	2.0	1.5
Nonferrous metals	.9	.2	1.1	.7	1.0	.8
Aluminum manufactures	.5		.9		.6	.4
Other nonferrous	.4	.2	.2	.7	.4	.4
Lumber and allied products	5.3	5.0	8.5	1.9	1.8	1.2
Furniture	.7	.3	1.2	.4	.1	.8
Logging, sawmills, etc	4.6	4.7	7.3	1.5	1.7	.4
Stone, clay, and glass	.4	.5	.3	.5	.3	1.6
Textiles and apparel	.7	.5	.9	.4	.9	1.9
Food and related products	2.9	3.5	2.2	2.5	5.1	3.2
Canning and preserving	.6	.3	.5	.7	.9	.5
Meat packing	.5	.2	.5	.4	1.2	.1
Other food products	1.8	3.0	1.2	1.4	3.0	2.6
Chemicals, petroleum and coal products	1.6	1.9	1.0	2.3	2.2	1.6
Rubber products	.1	.2	.1	.1	.4	.7
Paper and printing	1.9	2.0	2.5	.8	1.7	1.1
Pulp, paper, and paper products	.9	.3	1.8	.1	.3	.4
Printing and publishing	1.0	1.7	.7	.7	1.4	.7
Miscellaneous manufacturing	1.0	.3	.9	1.2	1.3	3.9
Nonmanufacturing	47.7	41.3	46.9	50.1	51.8	41.2
Public utilities	6.5	6.3	7.2	5.9	6.0	1.9
Electric light and power	1.3	.7	1.8	1.0	1.2	.2
Railroads	1.9	1.9	2.0	2.1	1.3	.3
Trucking	1.1	1.2	1.2	.7	1.3	.5
Other	2.2	2.5	2.2	2.1	2.2	.9
Trade (wholesale and retail)	9.7	13.9	9.5	7.2	10.7	10.3
Automotive	1.5	2.4	1.6	.4	2.3	1.3
Department stores	2.0	2.7	2.3	1.1	2.0	4.3
Food	2.3	2.9	2.2	2.6	1.9	1.2
Other trade	3.9	5.9	3.4	3.1	4.5	3.5
Hotels, clubs, camps	1.2	1.3	1.5	1.0	.9	.3
Laundries, dyeing and cleaning	.6		.6	.5	.9	1.3
Restaurants	1.1	.7	.8	1.9	1.0	2.7
Longshoring	.3	.3	.5		.1	
Farming	2.5	.8	1.7	5.0	2.3	1.2
Self-employed, except farm	3.9	1.7	5.1	2.9	4.5	3.8
Government, except education	6.7	5.5	5.6	9.7	5.8	4.0
Federal	4.9	4.4	3.9	7.9	3.0	2.8
State	.7	.8	.6	.8	.6	.3
County and municipal	1.1	.3	1.1	1.0	2.2	.9
Education	2.2	1.7	2.8	.9	3.0	2.0
Private construction	4.1	1.3	4.6	3.8	5.8	1.9
Miscellaneous nonmanufacturing	8.9	7.8	7.0	11.3	10.8	11.8
Nonindustrial and unknown	15.1	19.2	10.2	23.3	11.1	20.7
Students	3.8	.5	4.7	6.2	.3	1.2
Unemployed	2.8		.1	10.4		.1
Data not available	8.5	18.7	5.4	6.7	10.8	19.4

An analysis of the industrial sources of workers hired by shipyards in the individual areas shows relatively few striking differences. Such variations as are found tend, in part, to reflect the concentration of other industries in certain areas. For example, the importance of lumbering operations in the Northwest presumably explains the disproportionate numbers of shipyard workers recruited from this industry in the Portland-Vancouver area. Interarea differences cannot be regarded as highly significant in some cases because of the varying proportions of "unknowns."

Aircraft-parts plants in the Los Angeles area recruited their new workers from trade and service industries to a larger extent than did the shipyards. The lighter nature of the work performed in these plants permits the employment of substantial proportions of women; this is not the case among the shipyards.[2]

Location of Previous Employment

Four out of every five new employees in these industries were previously employed within the same State (table 2). This information relates to the location of the workers' last job and does not exclude an earlier migration. Substantial proportions of the accessions in San Francisco shipyards were drawn from nonadjacent California counties, in contrast to the larger proportions of local workers hired in the other areas. The majority of the employees hired from other States by the shipyards were previously employed in the region west of the Mississippi; the aircraft-parts plants, however, attracted many workers from the industrial centers of Illinois, Michigan, and Wisconsin as well. Very few workers in either group of plants were recruited from Eastern or Southern States.

TABLE 2.—*Location of Previous Employment of Workers Hired by West Coast Shipyards and Aircraft-Parts Plants, by Area, June 1942*

Area	Percent of total accessions from specified areas				
	Ship construction				Aircraft-parts: Los Angeles
	Total: West coast[1]	Portland–Vancouver	San Francisco	Los Angeles	
Total accessions:					
Number	3,687	1,860	1,135	692	1,524
Percent	100.0	100.0	100.0	100.0	100.0
Same city	53.8	61.3	38.5	59.7	67.4
Same county, other than same city	2.0	2.0	----------	5.2	2.3
Adjacent counties (same State or adjacent States)	3.5	4.2	2.3	3.3	1.0
Same State, other than adjacent counties	11.9	6.3	24.1	6.8	2.5
Adjacent States, other than adjacent counties	5.8	10.0	1.5	1.6	1.0
Other States	11.6	8.2	14.2	16.2	13.0
Outside continental United States	.5	.7	.2	.4	.2
Not reported	10.9	7.3	19.2	6.8	12.6

[1] Area of last previous employment not available for new workers in Seattle shipyard.

[2] The absence of data pertaining to the sex of new workers does not permit a more detailed analysis of this factor.

Utilization of Skills

The workers hired by the plants included in this survey tend, as might be expected, to find jobs similar to their previous employment (tables 3 and 4). Practically all of the formerly unemployed workers hired by the shipyards were presumably unskilled, since very few went to work at skilled jobs. There is some indication that unused skills may have been put to use. Clerical workers, professional and semiprofessional workers and sales persons obtained employment in numerous instances as electricians, machinists, riggers, and welders.

TABLE 3.—*Previous Employment and Present Occupation of Workers Hired by West Coast Ship-Construction Yards, June 1942*

Type of previous employment	Present occupation in ship-construction yards							
	All occupations	Electricians	Machinists	Riggers	Steel checkers	Welders and burners	Boilermakers' helpers	Electricians' helpers
Total accessions	2,651	85	56	155	125	275	135	38
Agricultural:								
Farm owners and tenants	22	----	----	----	1	2	1	1
Laborers	73	----	----	4	1	9	4	----
Clerical	190	1	----	5	59	8	9	1
Industrial, craft and manual:								
Skilled	664	60	38	41	6	122	30	14
Semiskilled	337	8	1	34	7	44	17	1
Unskilled	477	4	2	35	1	33	42	5
Professional and semiprofessional	121	3	3	5	19	12	3	3
Sales	190	5	1	11	19	14	8	----
Service, general and protective	200	----	2	10	----	19	11	6
Students	68	----	1	----	5	1	5	----
Unemployed	161	----	2	----	----	2	1	5
Miscellaneous occupations	55	3	1	3	5	3	4	----
Not reported	93	1	5	7	2	6	----	2

Type of previous employment	Present occupation in ship-construction yards						
	Guards	Laborers	Machinists' helpers	Riggers' helpers	Shipfitters' helpers	Welders and burners' helpers	Miscellaneous occupations
Total accessions	54	440	137	41	327	85	698
Agricultural:							
Farm owners and tenants	1	6	----	1	2	3	4
Laborers	----	33	6	----	6	4	6
Clerical	6	24	5	2	27	5	38
Industrial, craft and manual:							
Skilled	6	37	18	6	67	14	205
Semiskilled	4	49	13	4	40	9	106
Unskilled	8	123	30	10	70	24	90
Professional and semiprofessional	6	15	5	----	6	3	38
Sales	6	32	10	1	21	11	51
Service, general and protective	14	48	11	5	24	2	48
Students	----	6	2	----	23	6	19
Unemployed	----	44	33	11	22	----	41
Miscellaneous occupations	1	4	3	----	8	2	18
Not reported	2	19	1	1	11	2	34

TABLE 4.—*Previous Employment and Present Occupation of Workers Hired by Los Angeles Aircraft-Parts Plants, June 1942*

Type of previous employment	Present occupation in aircraft-parts plants												
	All occupations	Machinists	Lathe operators	Welders	Inspectors	Assemblers	Burrers	Clerks	Craters and packers	Guards and watchmen	Janitors	Laborers, general	Miscellaneous occupations
Total accessions	1,524	33	52	44	133	210	193	120	39	26	20	116	538
Agricultural:													
Farm owners and tenants	4									1			3
Laborers	12					2				1		3	6
Clerical	194				13	15	26	82	11	2	1	7	37
Industrial, craft and manual:													
Skilled	472	22	43	36	63	25	47	3	5	2	5	12	209
Semiskilled	188	2	1	1	4	57	31	1	3	3	1	19	65
Unskilled	132			3	5	19	20	2	6	2	1	28	46
Professional and semiprofessional	51				2	8	7	3	2	2		2	25
Sales	141		3	1	14	28	24	13	6	1		8	43
Service, general and protective	119	2			10	24	21	3	1	6	5	10	37
Students	21	2			1	6	2	1	1			3	5
Unemployed	1							1					
Miscellaneous occupations	84	3	4		11	10	12	8	1	1	3	6	25
Not reported	105	2	1	3	10	16	3	3	3	5	4	18	37

Age of New Workers

Workers in the predraft age groups were an important source of new recruits. The proportions of new shipyard employees under 20 years of age varied greatly among the areas studied; they ranged from 9.1 percent in Los Angeles to 30.3 percent in the Seattle area (table 5).

TABLE 5.—*Age of Workers Hired by West Coast Shipyards and Aircraft-Parts Plants, by Area, June 1942*

Age of new workers	Percent of total accessions					
	Ship construction					Aircraft-parts: Los Angeles
	Total: West coast	Seattle	Portland-Vancouver	San Francisco	Los Angeles	
Total accessions:						
Number	4,280	593	1,860	1,135	692	1,524
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Under 18 years	2.5	10.1	2.5	0.1	0.3	1.3
18 years	7.3	11.3	6.9	7.9	3.8	6.1
19 years	7.4	8.9	7.0	8.8	5.0	5.7
20 and under 25 years	17.9	17.6	18.4	19.2	14.3	23.3
25 and under 30 years	13.5	10.0	13.3	12.5	18.7	18.4
30 and under 35 years	13.9	9.0	14.1	13.9	17.1	15.8
35 and under 40 years	10.6	9.4	9.9	11.1	12.5	11.1
40 and under 45 years	8.8	6.0	8.2	9.6	11.5	6.1
45 and under 50 years	6.3	6.0	6.3	5.6	8.0	4.8
50 and under 55 years	4.8	5.3	4.6	5.3	3.9	3.4
55 and under 60 years	3.3	2.6	4.1	2.6	3.1	2.2
60 and under 65 years	2.3	2.4	2.7	2.4	1.2	1.5
65 years and over	1.4	1.4	2.0	1.0	.6	.3
Median age of new workers	30	24	30	30	32	28

Aircraft-parts plants in Los Angeles hired a greater proportion in this age group (13.1 percent) than did the local shipyards. Shipyards in the Portland-Vancouver area hired the greatest proportion of workers 50 years of age or over; the total in this group amounted to 13.4 percent. In this same age group the Los Angeles war plants hired the smallest proportions—only 7.4 percent in aircraft-parts plants and 8.8 percent in shipyards. With the exception of the workers hired by Seattle shipyards, the differences in the average (median) ages of accessions in the several areas are not marked.

Marital Status and Color of New Workers

The majority of the new workers in these plants were married. As indicated in table 6, however, the proportions of married recruits varied greatly among the areas studied; they ranged from 44.6 percent in Seattle to 73.9 percent in the Los Angeles area.

TABLE 6.—*Marital Status and Color of Workers Hired by West Coast Shipyards and Aircraft-Parts Plants, by Area, June 1942*

Industry and area	Percent of total accessions					
	Total		Marital status and color of new workers			
	Number of employees	Percent	Married		Single	
			White	All other	White	All other
Ship construction: West coast	4,280	100.0	54.0	2.0	41.8	2.2
Seattle	593	100.0	43.2	1.4	53.3	2.1
Portland-Vancouver	1,860	100.0	54.9	.5	43.9	.7
San Francisco	1,135	100.0	48.9	3.2	42.8	5.1
Los Angeles	692	100.0	68.7	5.2	24.1	2.0
Aircraft-parts: Los Angeles	1,524	100.0	60.9	.9	37.6	.6

With the exception of the California shipyards, the recruiting of new workers in these plants was limited largely to white workers. One-twelfth (8.3 percent) of the new workers in the San Francisco shipyards were nonwhites (Negroes, Filipinos, and Chinese). The proportion of nonwhites hired in the Los Angeles shipyards (5.9 percent) was largely accounted for by the employment of Negroes.

EMPLOYMENT OF PROFESSIONAL AND TECHNICAL PERSONNEL IN CONTRACT CONSTRUCTION

Summary

THE expansion of industrial activity occasioned by the war has brought about a marked increase in the demand for professional and technical workers. In order to ascertain both the current and anticipated demand for such employees, the Bureau of Labor Statistics, in cooperation with the Bureau of Employment Security and the National Roster of Specialized and Scientific Personnel, conducted a survey of employment among professional personnel. The present article gives the results of the study in the field of contract construction, covering 190 firms employing approximately 240,000 workers.[1] Each firm was asked to report its employment in July 1942, and its expected employment in December 1942, for 27 professional and technical occupations common to the construction industry.

The reports indicated that 13,198, or 5.5 percent, of the total workers were professional employees. Of the professional group only 293, or 2 percent, were women. The 94 firms reporting on the employment level anticipated for December 1942 expected an increase of 5.9 percent in their total force and 5.2 percent in the professional staff. However, among five professional occupations decreases were expected to take place.

Professional Employment in Contract Construction

Table 1 presents the occupational distribution of professional and technical workers in contract construction as of July 1942. The data indicate a heavy concentration of professional personnel in a few occupations. Engineers and draftsmen alone accounted for almost two-fifths of all professional and technical workers, while workers in five of the occupations—engineers, draftsmen, surveyors and their assistants, accountants, and construction superintendents—made up more than three-fourths of the total professional employment in contract construction.

Professional employees numbered 13,198, constituting 5.5 percent of the total working force of the 190 companies covered in the survey. The ratio of professional and technical workers to total employees, however, varied from firm to firm. Several companies reported no workers in professional occupations, while a few indicated that as many as 35 percent of their workers were in professional and technical pursuits. The extent to which companies employed professional workers depended not only on the size of the firm, but also on the type of construction work they were performing and the stage which their operations had reached at the time of the survey (July 1942). In general, it was found that small construction firms did not employ so large a proportion of professional workers as did the larger firms. However, companies engaged in specialized work, e. g., electric-power-plant construction, had a higher percentage of professional and technical personnel. It should also be noted that the number of professional and technical workers employed by construction firms is much

[1] Survey conducted by Bureau's Division of Construction and Public Employment; returns tabulated and analyzed by Occupational Outlook Division.

more stable than the number of operating personnel engaged in actual construction. The proportion of total workers in professional and technical occupations reported by the companies, therefore, varied with the stage which their operations had reached when they made their report. A firm which was just beginning a construction project, for example, would report a higher proportion of professional personnel than a company which was in the midst of a job and had a large operating staff engaged in actual construction.

TABLE 1.—*Occupational Distribution of Professional and Technical Personnel in 190 Contract Construction Firms, July 1942*

Occupation	Employment in July 1942		Occupation	Employment in July 1942	
	Number	Percent		Number	Percent
Total, professional and technical personnel	13,198	100.0	Tracers	315	2.4
Accountants and auditors	1,494	11.3	Surveyors	634	4.8
Cost accountants	348	2.6	Surveyors, assistants	1,232	9.3
Other accountants	905	6.9	Engineering specification writers	108	.8
Auditors	241	1.8	Estimators and quantity surveyors, construction cost	632	4.8
Architects	158	1.2	Personnel officials and technicians	279	2.1
Chemists	256	1.9	Labor-relations supervisors	68	.5
Engineers, professional	2,402	18.2	Employment interviewers	125	.9
Civil	1,028	7.8	Other	86	.7
Electrical	261	2.0	Construction superintendents	1,765	13.4
Mechanical	552	4.2	Building	1,272	9.7
Chemical	135	1.0	Highway	137	1.0
Industrial	44	.3	Heavy	356	2.7
Mining	8	.1	Construction inspectors	669	5.1
Other	374	2.8	Traffic men	98	.7
Physicians	32	.2	Purchasing agents	157	1.2
Nurses	103	.8	Expeditors	54	.4
Draftsmen	2,793	21.3	Other professional and technical personnel	17	.1

Woman Workers

Only a little over 2 percent of the professional and technical workers employed by the construction firms covered in the survey were women (table 2). Aside from nurses, where a large proportion of

TABLE 2.—*Proportion of Woman Workers in Professional and Technical Occupations in 190 Contract Construction Firms, July 1942*

Occupation	Total workers	Woman workers	
		Number	Percent of total workers in specified occupation
Total professional and technical workers	13,198	293	2.2
Accountants and auditors	1,494	117	7.8
Cost accountants	348	21	6.0
Other accountants	905	91	10.1
Auditors	241	5	2.1
Chemists	256	5	2.0
Engineers and architects	2,560	0	0
Nurses	103	81	78.6
Draftsmen	2,793	22	.8
Tracers	315	45	14.3
Engineering specification writers	108	1	.9
Personnel officials and technicians	279	21	7.5
Employment interviewers	125	8	6.4
Other personnel officials and technicians	154	13	8.4
Purchasing agents	157	1	.6
Other professional and technical personnel	5,133	0	0

women was to be expected, tracers represented the only other professional occupation in which female workers comprised a high proportion of the total. Almost all of the other woman professional workers were either engaged as accountants and auditors or were working in the personnel office.

Estimated Changes in Employment, July to December 1942

Approximately half (94) of the firms submitted estimates of expected employment in December 1942. As can be seen from table 3, these firms (most of which are large in size) expected an increase of a little over 5 percent in the number of professional workers, and a slightly higher percentage increase in total employment. However, significant differences can be observed among the various occupations. The changes in employment between July 1942 and December 1942 ranged from an increase of more than 15 percent among engineers and accountants to a decrease of almost 14 percent among tracers. It should be noted that the estimates presented in table 3 were submitted by the larger contract construction firms and should not be taken as representative of employment trends in the industry as a whole.

TABLE 3.—*Estimated Changes in Employment of Professional and Technical Personnel From July to December 1942 in 94 Contract Construction Firms*

Occupation	Total employment in specified occupation		Percent of change, July to December
	July 1942	December 1942 (estimated)	
Total persons employed	143,950	152,434	5.9
Total professional and technical	8,849	9,311	5.2
Accountants and auditors	844	898	6.4
Cost accountants	185	214	15.7
Other accountants	519	530	2.1
Auditors	140	154	10.0
Architects	94	88	−6.4
Chemists	256	276	7.8
Engineers, professional	1,507	1,646	9.2
Civil	577	664	15.1
Electrical	187	198	5.9
Mechanical	417	455	9.1
Other	326	329	.9
Draftsman	1,920	1,951	1.6
Tracers	182	157	−13.7
Surveyors	473	546	15.4
Surveyors, assistants	1,070	1,144	6.9
Estimators and quantity surveyors, construction cost	406	422	3.9
Personnel officials and technicians	198	212	7.1
Construction superintendents	971	968	−.3
Building	676	696	3.0
Highway	52	49	−5.8
Heavy	243	223	−8.2
Construction inspectors	572	621	8.6
Other professional and technical personnel	356	382	7.3
All other workers	135,101	143,123	5.9

Estimated Changes in Professional Employment

The comparative stability of professional employment in contract construction is illustrated by the data in table 4. The companies included in the survey were asked to report the precentage increase in their professional and technical staff which would occur if the volume of their construction activity increased by 25 percent. Similarly,

they were asked to estimate the decrease in professional employment which would occur if their construction work suffered a decline of 25 percent. These estimates for selected professional and technical occupations based on reports from 108 companies are given in table 4.

An increase of 25 percent in the volume of contract construction would result in an increase of only 15 percent in the number of professional and technical workers, while an even smaller percentage decrease (10 percent) would result from a 25-percent decline in construction activity. The tendency to keep the professional staff intact is particularly evident among such workers as engineers, physicians, draftsmen, and construction inspectors, who would experience a comparatively small decrease in employment even if the volume of contract construction declined by as much as one-fourth. In contrast, the increase to be expected among other than professional and technical workers in the event of a 25-percent increase in construction activity is much greater than among professional personnel. In addition, the decline among nonprofessional employees that would accompany a 25-percent decrease in construction work would be double the percentage decrease among professional workers.

TABLE 4.—*Estimated Changes in Employment of Professional and Technical Workers if Volume of Contract Construction Increased or Decreased 25 Percent*

Occupation	Percent of increase in employment if volume of construction increased 25 percent	Percent of decrease in employment if volume of construction decreased 25 percent	Occupation	Percent of increase in employment if volume of construction increased 25 percent	Percent of decrease in employment if volume of construction decreased 25 percent
Accountants and auditors	14	11	Estimators and quantity surveyors, construction cost	14	10
Architects	9	9	Personnel officials and technicians	9	60
Chemists	8	6	Construction superintendents	13	12
Engineers, professional	12	8	Construction inspectors	20	4
Civil	12	11	Traffic men	12	15
Electrical	10	6	Purchasing agents	16	17
Mechanical	13	6	Total	15	10
Other	11	5	All other workers	23	20
Physicians	16	0	Total persons employed	22	20
Nurses	17	9			
Draftsmen	16	5			
Tracers	24	4			
Surveyors	17	15			
Surveyors, assistants	13	20			
Engineering specification writers	7	2			

GOVERNMENTAL EMPLOYMENT, JANUARY 1939 TO JULY 1942[1]

Summary

GOVERNMENTAL employment (including both Federal and State and local public employment) reached a total of 5,416,000 in July 1942. This was an increase since January 1939 of 1,413,000, of which almost half (686,000) took place during the 8 months following the United States' entry into the war.

The aggregate increase in Federal employment of 1,522,000 in the period of 3 years and 7 months was accompanied by a decline of 109,000

[1] Prepared in the Bureau's Division of Construction and Public Employment, by F. Lucile Christman.

in State and local public employment, thus increasing the proportion of Federal employees from 22 to 45 percent of the total.

Federal war establishments [2] have increased their civilian employment more than sevenfold from July 1939 to July 1942; nonwar establishments have also added to their staffs. Outside the District of Columbia the Federal increase was 161 percent over the period, as compared with an increase of 123 percent inside the District.

One-fourth of all the governmental employees inside continental United States were concentrated in 3 States—New York (11 percent), California (7 percent), and Pennsylvania (7 percent). Another 18 percent were in the 4 States of Illinois, Texas, Ohio, and Massachusetts, each having slightly less than 5 percent. Six percent of all governmental employees were in the District of Columbia. State and local governments were the main public employers in 42 States, but in Maryland, Virginia, South Carolina, Washington, Texas, and Nevada, the Federal Government employed the larger share of public employees.

Scope and Method of Study

This article makes available for the first time monthly estimates of State and local public employment by major functional groups from January 1939 through July 1942. It brings together employment data for the various Federal services for the same period, and, in addition, shows the estimated distribution of both Federal and non-Federal public employment by State for July 1942.

The data for the Federal legislative and judicial services and for force-account employees [3] in the Federal executive service were collected by the Bureau of Labor Statistics; the other data on Federal employment were collected by the Civil Service Commission.[4] Estimates of State and local governmental employment were based on published data of the Office of Education, the Census Bureau's Quarterly Employment Survey, and on hitherto unpublished data of the State, County, and Municipal Survey, a Work Projects Administration project sponsored by the Bureau of Labor Statistics.

The State and local governmental employment series was originally developed as a component of the estimates of civil nonagricultural employment published monthly by the Bureau of Labor Statistics. Therefore, in order to avoid duplication with other industry series, part-time employees in cities of less than 5,000 population, who frequently drew only nominal salaries from the governments they served and derived their principal means of livelihood from other employment, have been excluded from the State and local series.[5] The education data include regular teachers the year round, whether or not they were paid on a 12-month basis.

The Federal series excludes "dollar a year" men, employees without compensation, the armed forces, as well as nonsupervisory employees

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[2] War establishments include the War and Navy Departments, Office for Emergency Management, Office of Censorship, Board of Economic Warfare, Office of Price Administration, Office of Strategic Services, and the Selective Service System.

[3] Force-account workers are those hired directly by the Federal Government on an hourly or daily basis for a specific construction or repair job.

[4] Data on employment in Government corporations were collected as of June 30 and December 31 each year and have been included in the tables for the intervening months at the same level as for the preceding reported month.

[5] Exceptions are the States of Maine and Massachusetts where no part-time employees were excluded, and the States of New Hampshire and Oklahoma where part-time employees in cities of less than 1,000 population were excluded.

of the Work Projects Administration, Civilian Conservation Corps, and National Youth Administration. Consultants on a fee basis, and part-time, temporary, and full-time employees are included. Civilian employees outside continental United States are included in tables 1 and 2 but are excluded from table 3.

The State distribution of Federal employees shown in table 3 was made on the basis of a geographic-distribution study made by the Civil Service Commission as of June 30, 1941,[6] adjusted for the transfers of agencies from the District of Columbia area to other parts of the country and for a large segment of War and Navy Department employment for which reports are received monthly.

Changes From January 1939 Through July 1942

The increase in Federal employment of 1,522,000 during the period January 1939–July 1942 was partially offset by a decline in State and local governmental employment (owing mostly to seasonal factors) of 109,000, leaving a net increase of 1,413,000, and bringing total public employment to a level of 5,416,000 in July 1942 (table 1).

All branches of the Federal Government shared in the increase. The judicial service gained less than 500, the legislative 1,300, Government corporations 8,000, and the executive service 1,512,000.

Three main periods may be distinguished in the rate of growth of Federal employment, the first from January 1939 until the outbreak of war in Europe in September, the second from September 1939 until the United States' entry into the war in December 1941, and the third, the period following the war declaration. During the first period, Federal employment increased at the rate of 10,000 a month, in the second period at the rate of 23,000 a month, while in the third period it increased 104,000 per month. From January 1939 to December 1941, the Federal Government added 693,000 employees, while in the following 8 war months it added 829,000.

Employment in the Federal executive service showed a tendency to rise more rapidly outside than inside the District of Columbia. During the period studied executive-service employment outside the District was almost tripled, while employment inside the District was a little more than doubled.

Non-Federal public employment demonstrated some tendency to increase from January 1939 to about December 1940 and thereafter to decline, until in July 1942 it was 109,000 below the January 1939 level. The predominant characteristic of the monthly movements, however, was seasonal, with employment in the fall and winter months usually high and in the summer months low. This pattern was the result of counteracting tendencies in the education and general government functions, the large number of lay-offs in the schools during the summer vacation months being only partially offset by the addition of employees for road work, park conservation and development, and supervision of summer playgrounds. In the education series, the seasonal pattern was the result of varying opening and closing dates for the different types of schools, localities, and levels of education, and of unpaid holiday periods for other than regular teachers.[7]

[6] Monthly Labor Review, April 1942 (p. 919): Geographic Distribution of Federal Civilian Employees, 1936–41.

[7] Regular teachers were considered employed the year round whether or not paid on a 12-month basis. Substitute, night, and other special-school teachers, as well as cafeteria and operation and maintenance employees, however, were considered employed only in the months in which they received pay.

The public-service-enterprise series, consisting mainly of municipal water-works systems, State alcoholic beverage monopoly systems, transportation systems (street railways, ferries, docks), etc., showed only minor monthly variations, except in June and July 1940 when the transfer of the New York City subway systems from private to public operation caused a sudden increase of approximately 22,000 employees.

TABLE 1.—*Employment in the Federal Government by Service, and Estimates of State and Local Governmental Employment by Major Function, January 1939–July 1942*

Year and month	Total	Federal						State and local			
		Total	Executive service[1]		Legislative	Judicial	Government corporations[2]	Total	General government	Education[4]	Public-service enterprises
			Inside District of Columbia	Outside District of Columbia[2]							
1939											
January	4,002,753	897,800	120,556	745,052	5,234	2,228	24,730	3,104,953	1,623,995	1,336,145	144,813
February	4,046,320	907,777	120,783	754,770	5,284	2,210	24,730	3,138,543	1,648,949	1,342,915	146,679
March	4,049,680	911,396	121,124	757,933	5,292	2,317	24,730	3,138,284	1,642,174	1,346,478	149,632
April	4,041,480	918,143	122,138	763,837	5,315	2,123	24,730	3,123,337	1,658,398	1,312,370	152,569
May	4,070,453	936,142	123,199	780,555	5,336	2,322	24,730	3,134,311	1,697,961	1,286,657	149,693
June	4,049,591	959,579	123,926	802,489	5,353	2,292	25,519	3,090,012	1,717,849	1,220,931	151,232
July	4,013,172	962,008	124,447	804,418	5,432	2,192	25,519	3,051,164	1,723,100	1,173,532	154,532
August	4,040,673	968,045	124,806	810,026	5,532	2,162	25,519	3,072,628	1,733,747	1,182,926	155,955
September	4,155,408	973,485	126,063	814,070	5,551	2,282	25,519	3,181,923	1,732,669	1,291,961	157,293
October	4,173,464	969,856	126,518	810,044	5,418	2,357	25,519	3,203,608	1,708,623	1,337,348	157,637
November	4,145,110	968,711	126,380	808,870	5,583	2,359	25,519	3,176,399	1,678,734	1,341,537	156,128
December	4,182,728	1,022,190	127,502	860,597	5,535	2,268	26,288	3,160,538	1,655,757	1,348,440	156,341
1940											
January	4,101,676	973,833	127,520	811,776	5,889	2,360	26,288	3,127,843	1,638,158	1,337,257	152,428
February	4,107,726	973,946	127,783	811,613	5,883	2,379	26,288	3,133,780	1,639,933	1,340,111	153,736
March	4,130,463	983,945	128,642	820,776	5,860	2,379	26,288	3,146,518	1,645,597	1,344,700	156,221
April	4,126,210	994,622	129,677	830,295	5,882	2,480	26,288	3,131,588	1,659,986	1,313,386	158,216
May	4,158,018	1,015,439	130,938	849,863	5,851	2,499	26,288	3,142,579	1,697,349	1,285,919	159,311
June	4,167,582	1,048,858	133,856	880,261	5,886	2,468	26,387	3,118,724	1,729,982	1,220,064	168,778
July	4,129,251	1,061,479	138,471	888,101	5,985	2,535	26,387	3,067,772	1,722,426	1,164,194	181,152
August	4,165,924	1,074,876	142,899	897,097	6,011	2,482	26,387	3,091,048	1,726,936	1,180,317	183,795
September	4,311,237	1,094,827	145,620	914,364	5,938	2,518	26,387	3,216,410	1,743,658	1,292,543	180,209
October	4,348,935	1,126,739	149,389	942,542	5,892	2,529	26,387	3,222,196	1,712,896	1,332,263	177,037
November	4,326,922	1,148,778	152,538	961,530	5,932	2,391	26,387	3,178,144	1,660,324	1,342,553	175,267
December	4,340,942	1,219,716	155,914	1,028,430	5,921	2,514	26,937	3,121,226	1,608,048	1,342,900	170,278
1941											
January	4,251,276	1,188,860	158,610	994,821	5,985	2,507	26,937	3,062,416	1,569,227	1,330,202	162,987
February	4,280,547	1,208,515	161,862	1,011,290	5,921	2,505	26,937	3,072,032	1,574,519	1,333,157	164,356
March	4,325,704	1,238,463	166,928	1,036,056	6,033	2,509	26,937	3,087,241	1,583,475	1,337,754	166,012
April	4,387,310	1,286,812	172,817	1,078,538	6,015	2,505	26,937	3,100,498	1,625,614	1,306,618	168,266
May	4,477,312	1,343,111	177,355	1,130,247	6,055	2,517	26,937	3,134,201	1,683,412	1,279,326	171,463
June	4,490,790	1,410,996	184,312	1,187,183	6,132	2,526	30,843	3,079,794	1,694,193	1,213,868	171,733
July	4,474,344	1,434,622	185,182	1,209,818	6,142	2,637	30,843	3,039,722	1,705,786	1,158,162	175,774
August	4,558,196	1,483,876	186,938	1,257,469	6,048	2,578	30,843	3,074,320	1,723,316	1,174,253	176,751
September	4,764,956	1,531,211	192,001	1,299,517	6,279	2,571	30,843	3,233,745	1,754,038	1,302,338	177,369
October	4,711,733	1,558,717	194,784	1,324,279	6,242	2,569	30,843	3,153,016	1,650,338	1,339,195	163,483
November	4,729,998	1,590,459	199,518	1,351,314	6,202	2,582	30,843	3,139,539	1,625,071	1,352,096	162,372
December	4,790,161	1,716,642	208,174	1,469,473	6,290	2,593	30,112	3,073,519	1,558,303	1,352,547	162,669
1942											
January	4,768,355	1,725,650	223,761	1,462,839	6,354	2,584	30,112	3,042,705	1,569,624	1,317,210	155,871
February	4,919,535	1,869,097	234,010	1,596,031	6,343	2,601	30,112	3,050,438	1,574,548	1,320,019	155,871
March	5,031,131	1,966,990	241,174	1,686,759	6,339	2,606	30,112	3,064,141	1,583,712	1,324,512	155,917
April	5,101,169	2,042,079	248,192	1,754,668	6,457	2,650	30,112	3,059,090	1,609,399	1,293,777	155,914
May	5,217,085	2,128,657	256,457	1,832,792	6,643	2,653	30,112	3,088,428	1,665,882	1,266,635	155,911
June	5,305,987	2,271,174	268,380	1,960,909	6,539	2,645	32,701	3,034,813	1,676,967	1,201,973	155,873
July	5,415,862	2,419,835	277,258	2,100,697	6,526	2,653	32,701	2,996,027	1,691,417	1,146,739	157,871

[1] These figures represent the most recent revisions and therefore do not agree in all months with data previously published by the Civil Service Commission.

[2] Data for public employment offices which were federalized in January 1942 are included from January through July 1942.

[3] Employment data which were reported twice each year as of June 30 and December 31 have been estimated for unreported months at the same level as for the last reported month.

[4] Regular teachers were considered employed throughout the year whether paid on a 12-month basis or not.

Federal War and Nonwar Establishments

In July 1939, nonwar establishments employed four out of every five persons in the Federal executive service, whereas 3 years later, although they had expanded their staffs, they employed fewer than two out of every five persons in the executive service.

Numerically, employment in the War and Navy Departments and the war emergency establishments increased from July 1939 to July 1942 by 1,312,000, as compared with an aggregate employment increase in nonwar establishments of 137,000. In July 1942, employment in the various war agencies was as follows:

War Department	940,000
Navy Department	475,700
Office for Emergency Management:	
War Production Board	17,600
Other	13,100
Office of Censorship	10,500
Office of Price Administration	25,900
Office of Strategic Services	900
Board of Economic Warfare	2,200
Selective Service System	26,800

The increase in both the relative and absolute importance of Federal employment in war establishments represents an understatement of the importance of war activities, however, because agencies shown as war establishments include only those traditionally so classified—the War and Navy Departments—and the newer war emergency agencies, whereas many other Federal agencies have either been assigned tasks connected directly with the war or have been servicing war agencies. For example, the main employment increases in nonwar establishments were as follows:

Department of Justice	19,000	Maritime Commission	3,900
Department of Commerce	12,500	National Advisory Committee for Aeronautics	2,000
Civil Service Commission	5,800	Panama Canal	21,600
Federal Communications Commission	1,500	Tennessee Valley Authority	33,500
Federal Security Agency	13,800		

In table 2, Federal employment in war and nonwar establishments in July 1942 is compared with that in July 1939 (rather than January, the beginning of the period studied), so that the comparison might be for corresponding months.

TABLE 2.—*Civilian Employment in Executive Branch of Federal Government, by Principal War Agencies and Nonwar Agencies, July 1939 and July 1942*

Department or establishment	July 1942 [1]			July 1939			Percent of change, July 1939 to July 1942		
	Total	Inside District of Columbia	Outside District of Columbia	Total	Inside District of Columbia	Outside District of Columbia	Total	Inside District of Columbia	Outside District of Columbia
All agencies	2,377,955	277,258	2,100,697	928,865	124,447	804,418	+156.0	+122.8	+161.1
War establishments	1,510,517	132,234	1,378,283	198,392	18,332	180,060	+661.4	+621.3	+665.5
War Department	940,005	58,701	881,304	111,101	6,086	105,015	+746.1	+864.5	+739.2
Navy Department	475,683	45,501	430,182	87,291	12,246	75,045	+444.9	+271.6	+473.2
Other [2]	94,829	28,032	66,797						
Nonwar establishments	867,438	145,024	722,414	730,473	106,115	624,358	+18.8	+36.7	+15.7

[1] Includes employment for public employment offices which were federalized in January 1942, and for the transportation service of the War Department.

[2] Covers the Office for Emergency Management, Office of Censorship, Board of Economic Warfare, Office of Price Administration, Office of Strategic Services, and the Selective Service System.

Governmental Employment in Each State, July 1942

New York ranked first in the number of governmental employees in July 1942, with over half a million public employees, while Pennsylvania and California ranked second and third, respectively, with well over a third of a million each. In the case of New York and California, State and local public employment was the major component, while in the State of Pennsylvania, because of the operation of large War and Navy establishments there, Federal employees numbered almost as many as the State and local employees.

In addition to these three top States, public employees numbered over 200,000 in four States—Illinois, Texas, Ohio, and Massachusetts. Nevada and Delaware each had fewer than 10,000 governmental employees.

In six States, the Federal Government had the larger share of public employees. In Maryland, Virginia, South Carolina, and Washington the Federal Government was the main public employer because of War and Navy Department establishments. In Texas it was the main public employer both because of War Department establishments and because of the rather large number of post-office employees necessary to serve the vast area of the State. In Nevada the predominance of Federal employees resulted from a combination of factors—the small population of the State requiring local governmental services on only a small scale, and extensive conservation and development work of the U. S. Department of Interior.

Estimated employment of the Federal, State, and local governments is shown for each State in table 3. Employees stationed outside continental United States have been excluded from the tabulation.

TABLE 3.—*Estimated Public Employment by State, July 1942*[1]

[In thousands]

State	Total	Federal[2]	State and local	Percent of total	State	Total	Federal[2]	State and local	Percent of total
Total	5,285.6	2,289.4	2,996.2	100.0	Mississippi	62.7	23.0	39.7	1.2
					Missouri	114.6	43.6	71.0	2.2
District of Columbia	298.3	283.0	15.3	5.6	Montana	24.8	9.2	15.6	.5
48 States	4,987.3	2,006.4	2,980.9	94.4	Nebraska	49.3	16.8	32.5	.9
					Nevada	8.2	4.5	3.7	.2
Alabama	75.3	31.6	43.7	1.4	New Hampshire	20.8	3.7	17.1	.4
Arizona	21.7	10.3	11.4	.4	New Jersey	154.2	58.2	96.0	2.9
Arkansas	46.5	16.4	30.1	.9	New Mexico	20.6	8.6	12.0	.4
California	369.0	154.9	214.1	7.0	New York	591.2	210.8	380.4	11.2
Colorado	51.9	18.7	33.2	1.0	North Carolina	88.9	27.3	61.6	1.7
Connecticut	54.3	12.2	42.1	1.0	North Dakota	19.9	4.9	15.0	.4
Delaware	9.2	2.3	6.9	.2	Ohio	239.5	89.7	149.8	4.5
Florida	87.0	38.6	48.4	1.6	Oklahoma	71.4	20.4	51.0	1.3
Georgia	99.3	46.6	52.7	1.9	Oregon	48.5	19.0	29.5	.9
Idaho	21.4	8.1	13.3	.4	Pennsylvania	384.7	188.6	196.1	7.3
Illinois	247.5	98.0	149.5	4.7	Rhode Island	36.1	16.9	19.2	.7
Indiana	101.2	28.5	72.7	1.9	South Carolina	81.5	48.2	33.3	1.5
Iowa	71.5	12.5	59.0	1.3	South Dakota	26.1	5.8	20.3	.5
Kansas	61.2	14.5	46.7	1.2	Tennessee	95.7	43.2	52.5	1.8
Kentucky	69.0	25.2	43.8	1.3	Texas	245.9	126.1	119.8	4.6
Louisiana	91.1	40.5	50.6	1.7	Utah	29.8	13.5	16.3	.6
Maine	50.0	23.5	26.5	.9	Vermont	13.6	3.5	10.1	.3
Maryland	106.8	68.8	38.0	2.0	Virginia	168.9	113.5	55.4	3.2
Massachusetts	231.7	104.2	127.5	4.4	Washington	112.9	63.1	49.8	2.1
Michigan	170.3	36.6	133.7	3.2	West Virginia	45.9	9.0	36.9	.9
Minnesota	93.3	21.4	71.9	1.8	Wisconsin	88.7	15.7	73.0	1.7
					Wyoming	13.7	6.2	.75	.3

[1] Excludes employment outside continental United States.

[2] Includes employment for the public employment offices which were federalized in January 1942, and for the transportation service of the War Department.

CONDITIONS IN BRITISH COAL-MINING INDUSTRY

THE need for improving the coal-supply situation in Great Britain has recently been one of the important economic problems occupying public attention. In anticipation of a serious fuel shortage during the coming winter unless production is increased and consumption is curtailed, measures were recently taken by the Government to increase the wage rates of mine labor, to create national wage-fixing machinery, and to establish a point rationing system for fuel in all forms. Rationing was postponed pending the results of a campaign for voluntary reduction in the use of coal and its products. Beginning on July 1, the nationalization of coal-mine royalties became effective as provided by legislation enacted in 1938. Also, a new Ministry of Fuel was established and the Government assumed full control over operation of the mines. The main outlines of the situation in the autumn of 1942 are discussed in the present article.

Wartime labor problems in the coal industry may be traced back to the pre-war era of depression in the British heavy industries. Coal mining, shipbuilding, and iron and steel were industries in which unemployment had become chronic. Trade in the localities of production fell off and as the situation did not right itself, the Government intervened. A law was enacted in 1934 to alleviate distress in what were called the "special" or "distressed" areas, and was renewed later. By renting factories to employers and granting financial aid in the form of concessions as to rent and taxes for not over 5 years, the Government hoped to induce persons to establish businesses in the designated districts. Success under this formula was limited, but the effort was continued and is expected by some persons in Great Britain to be useful in post-war reconstruction.

Many of the young men who would ordinarily have followed their fathers' example and entered the mines drifted out of their home districts to find employment in other lines of work. The older mine workers and those least able to make a new start in a changed environment and trade remained to work the mines. A further reduction in the mining force occurred after the fall of France in 1940. It was then assumed that the loss of the export trade would so reduce the coal requirements that unless production was curtailed stocks would mount unduly. Men were permitted to leave mine employment for the armed forces, some mines were shut down, and the industry adjusted itself to a depression-production program. This was a miscalculation, as coal requirements actually increased both for industrial use, owing to the growth in the manufacture of munitions of war, and for domestic use, as a result of the unusually severe winter in 1940–41 and the relatively large proportion of workers' high wartime incomes that could be devoted to nonrationed fuel.

Conclusions of Select Committee

Owing to the shortage of coal, the Select Committee on National Expenditure (3d report, Session 1941–42), after investigation, recommended that men should be released from the Army temporarily to build up coal stocks for the winter of 1942–43. As a consequence of the loss of the export trade to France and Italy, many of the younger and more active men—largely coal-face workers and mechanical,

electrical, and maintenance staff—had left the industry. The movement was not checked by means of the Undertakings (Restriction on Engagement) Order of June 1940, although the dangers inherent in the situation were impressed upon the Government by employers and employees. When a campaign for increased production became necessary in the spring of 1941, over 70,000 miners were either in the armed forces or in other industries to which essential-work orders had been applied. Successive measures taken to staff the mines were the Essential Work (Coal-Mining Industry) Order of May 1941 and an appeal on June 23, 1941, for the voluntary return of 50,000 ex-miners from industry. The response to the appeal for coal-mine labor was negligible and a compulsory registration was held July 17 and 18 of all those who had left the industry since January 1, 1935. The net result was the addition of about 17,000 employees by December 22, 1941.

Up to October 1941 the increase in the weekly output was not proportionate to the number of men reemployed, notwithstanding the added incentives of a guaranteed weekly minimum wage, an unconditional attendance bonus, a cost-of-living wage agreement, and active propaganda. Improvement was discernible at the end of the year. Cooperation was growing between employers and employees through the pit production committees. However, the Select Committee recommended that the pit production committees should confine their attention strictly to production matters and leave wages and working conditions to be dealt with under the normal machinery and preferably outside of working hours.

Factors adversely affecting production were enemy action in some areas, the deterioration of the quality of the working force owing to the increased proportion of older men and the reluctance of youths to accept underground work, and the continued, though diminishing, lack of sustaining food. Absenteeism was still on the increase, according to the latest statistics available to the Select Committee. A minority, principally made up of young men, was apparently not doing its best work and was a disturbing factor in the industry. Dissatisfaction was found because of income-tax payments and the high earnings of wives and daughters as compared with the mine workers.

It was recommended that attention to the provision of nourishing meals, as well as to transport facilities and travel allowances, should be continued. As several thousand more men were needed and as the War Cabinet was not prepared to release the extra labor from the armed forces, the Select Committee foresaw recruitment for mines from other industries, with careful reexamination of appeals for retention of mine labor in other employment. Colliery management, it was recommended, should be asked to submit to the employment exchanges lists of men who should return to the mines.

Proposals and Gains of Labor

The British Labor Party at its conference in May 1942 unanimously endorsed a memorandum prepared by the National Council of Labor, outlining the mine workers' plan for reorganization of the coal industry under a national board representing mine owners and workers and empowered to manage the industry as a national service for the duration of the war. The plan had the prior approval of the executive

council of the Trades Union Congress, the executive of the Labor Party, and the cooperative movement. At the time the Labor Party took this stand the Government was preparing the "white paper" on reorganization of the coal industry which is discussed in another section of the present article.

It was also in May that the Mine Workers' Federation placed before the coal operators a request for an immediate general increase in wages and for a uniform national minimum wage of £4 5s. a week.[1] Wages had previously been raised by 3s. 8d. a shift, or 36 percent from the outbreak of war. On the average, the wage rise requested would have yielded 4s. a shift, which the Economist (London) estimated would raise the price of coal approximately 5s. a ton. In the opinion of the mine workers, the existing wage level was not sufficiently high to induce labor to enter an occupation which is both arduous and unpleasant. Moreover, labor stated that the scale of pay often compared unfavorably with the remuneration for less taxing work in the munitions industries.

A national wage decision made by a special body—the Greene Tribunal—provided for a national minimum wage of £4 3s. weekly for underground workers and £3 18s. for surface workers. Delegates from all British coal fields agreed to accept the new national weekly minimum, effective on July 10. The wage increases were not offset by a direct Government subsidy, but the rise in coal prices was partially balanced by reductions in the prices of other essential items, and the cost of living changed little. A price advance of 3s. a ton was settled upon after the wage increase became effective.

The national award also provided for a bonus scheme to stimulate output. Details were subsequently worked out by employers, miners, and the Government, providing extra payments for mine labor to be made by districts in respect of output in excess of a standard tonnage. The amount of the bonus is to be calculated on a per shift basis. As district standards of tonnage output are being based on production in recent months, it should not be difficult to exceed them. Special provision was made to guard workers from being penalized owing to "abnormal interruptions of production through cause outside the control of the workers." The rate of bonus was established at 3d. per shift for every 1 percent by which output exceeds the standard. Not more than 3s. 9d. may be paid to an individual as a bonus for any one shift. Underground workers from the age of 18 years are eligible to receive the extra pay and other workers from age 21.

A statement by the president of the Mine Workers' Federation on the agreement expresses the unanimous approval of the membership in accepting the wage proposals. The right of the miner to a national minimum wage and the decision to establish a National Wages Board are viewed as of especial importance, as the Federation has long sought such a body to deal with all questions affecting wages and conditions of labor. According to the president, the production committees representing miners and technical and managerial staffs, which formerly concerned themselves with wages and other issues, will now be able to concentrate on the single task of pushing output. With the whole output of coal under national control for the duration of the war, miners feel they will have a new outlook.

[1] Official exchange rate in July 1942: pound = $4.035; shilling = 20.17 cents; penny = 1.68 cents.

Major Labor Problems

In 1941, before the coal shortage became so acute, the essential-work order, already referred to, was promulgated for the coal industry. Under its terms, labor in scheduled establishments had guaranteed employment and an increase of 1s. per shift as an attendance bonus which formed a part of the general increase in pay. These incentives were insufficient to stimulate a wholly satisfactory attendance record by members of the working force, to prevent labor disputes leading to work stoppages, and to raise productivity of mine labor to a point necessary to prevent the present serious coal-supply problems.

ABSENTEEISM

The amount of absenteeism in mines is a much-debated subject, but according to a statement of the British Government it is doubtful whether it is actually greater than in other industries. Factors contributing to slackness in attendance were found to vary according to conditions wholly outside the mines in a study of 1,928 cases dealt with by a North Staffordshire Pit Production Committee for the period from July 1940 to May 1942. The percentage of employees and of absenteeism cases, by age groups, was as follows:

	Percent of—	
	Employed	*Absenteeism cases*
Group A (14 to 20 years)	22. 5	9. 1
Group B (20 to 35 years)	38. 0	63. 7
Group C (35 to 50 years)	22. 5	25. 1
Group D (50 years and over)	12. 0	2. 1

Group A youths worked well, but of the 175 cases of absentees 65 percent were fined for having inadequate excuse, 7.5 percent produced medical certificates, and 27.5 percent were cautioned and warned to improve their attendance. In several cases it was more profitable to the family to keep the boys at home than to keep at home the girls who were working in munitions industries.

Among group B employees of 20 and under 35 years of age, 56.3 percent were fined, 12.4 percent produced doctors' certificates, and 31.3 percent were cautioned. About 70 percent of the total fined had wives who were working; 20 percent were single employees who limited their earnings to avoid paying income taxes; and 10 percent had never worked with regularity. Men with wives working were usually young and without family responsibility. The joint income of husband and wife was more than sufficient to meet living standards to which they were accustomed. Many of the women earned more than their husbands and the loss of pit time plus fines was less unprofitable than lost time of the wife.

Older men in group C who were absent included 41 percent who were fined, 16 percent who had doctors' certificates, and 43 percent who were excused. As a group these men worked fairly well and had heavy family responsibilities. Causes of absence were that several members of the family were working and the children earned more at munitions than did their fathers at mining; and that extreme effort by the father was unnecessary. A fair number of the men in this group had had injuries in the last war and took repeated single days off without a medical certificate.

Twenty-eight percent of the absentees in group D were fined; 22 percent produced doctors' certificates; and 50 percent had reasonable excuses. These men worked average time, if not 100 percent.

Basing conclusions on the premise that all avoidable absenteeism was covered by the cases dealt with, avoidable absence was 65 percent of the total in group A, 56.3 percent in group B, 41 percent in group C, and 28.5 percent in group D. Group A was unproductive, groups B and C productive, and group D partially productive. Avoidable absence in the chief productive groups—B and C—was 52.5 percent of the total. The conclusion was that since groups B and C are responsible for 89 percent of the cases dealt with, it is easy to understand why output per man-shift at this pit should have fallen.

LABOR DISPUTES

Work stoppages caused by labor disputes in the coal industry accounted for a disproportionately large part of the strike activity in 1940 and 1941, as shown in the following figures:

	All industries	*Coal mining*
Number of workers involved in strikes:		
1941	359, 800	153, 000
1940	299, 400	189, 800
Man-days of idleness owing to strikes:		
1941	1, 075, 000	334, 000
1940	940, 000	505, 000

Of the number of workers involved in strikes, 42.5 percent of the total in 1941 and 63.4 percent in 1940 were in the coal industry. Man-days of idleness owing to strikes in the coal industry made up 31.1 percent of the total in 1941 and 53.7 percent in 1940. In contrast, the latest employment statistics available show only 858,140 insured persons attached to the industry in July 1939 in a total of over 14,000,000 insured. A high rate of strike activity among mine workers has been common in other countries as well as Great Britain and is a condition that is not peculiar to wartime.

There has been concern over unauthorized strikes of mine labor, that is, strikes called without giving the notice of intention required under the terms of the Conditions of Employment and National Arbitration Order of 1940 and without permitting the required 21 days to elapse. In recent months jail sentences have been imposed in some cases, and adverse public sentiment has been expressed concerning individual stoppages.

LABOR PRODUCTIVITY

Output per man per day dropped approximately 8 percent from the outbreak of war to the early part of June 1942, according to a statement made by the Lord President of the Council in the House of Commons on June 10. Until the end of 1941 the variation in productivity for men at the coal face was slight. It has dropped since then and in May 1942 the man-day output of face workers was 2.89 tons as compared with 2.94 tons in 1941. However, the number of shifts worked per week has risen from 5 per week before the war to 5.5, with a high of 5.66. These figures indicate the importance of concentrating work in the most productive coal seams and are significant in that they show the efforts of the miners to raise production.

To the extent that nutritional deficiencies contributed to loss in man-day output of coal-mine employees, relief measures taken by the Government have been an alleviating factor. Under the ordinary rationing system, the weekly meat allowance has been limited to 1s. 2d. a week and cheese to 3 ounces weekly. A special allowance of 12 ounces of cheese weekly was authorized last December for underground miners, among other persons doing heavy work. Ordinarily, the miner carries his lunch and eats underground, while workers in other industries have been accustomed to buying the noon meal. Under war conditions the employee buying a meal benefits from obtaining hot food and also because meals outside the home are unrationed. The worker buying his lunch away from home can therefore consume all of his rationed foods in two instead of three meals at home. In order to remove the disadvantage to mine workers who were carrying their rationed foods from home, canteen services have been established at the mines. By April 4, 1942, services were in operation at 730 collieries, employing 96 percent of the miners, of a total of 1,030 collieries with more than 50 workpeople each. Full meals were being supplied at 61 canteens and arrangements were being made to extend this service to 343 more collieries of which 272 already had simpler food services. It was anticipated that the 404 canteens would be completed before the winter of 1942–43 and would meet existing and future requirements. With some exceptions—namely in Yorkshire, the Northeast Coast and Nottinghamshire—the miners prefer a canteen capable of providing snacks rather than full meals.

If coal output is to be increased, the labor force must be maintained, if not increased. According to a recent Government "white paper" there is a net wastage of some 25,000 men per year in the industry. This was offset in 1941 by returning 33,000 men from other industries. In 1942 some 6,500 men were returned to the mines from the army, 1,300 from the R. A. F., and 3,500 from industry and civil defense. At this stage of the war no further men will be taken from the armed forces to work in the mines.

The need of attracting young men into the industry, thus reducing the proportion of mine workers who have passed their peak in effective work, has been given serious consideration. On April 21, 1942, it was announced that the Minister of Labor and National Service and the President of the Board of Trade, in consultation with the president of the Board of Education and the Secretary for Mines, had appointed a special committee to inquire into the opportunities for training, advancement, and the general welfare of juveniles in coal mining and to make recommendations. Recent increases in the level of wages may serve to reduce the reluctance of young persons to enter the mines.

Fuel Rationing

A plan for restricting and rationing the consumption of fuel was prepared by Sir William Beveridge on request made by the president of the Board of Trade under date of March 17, 1942. Although it was generally believed that fuel rationing would be welcomed by the House of Commons the plan, when presented in April, met with disapproval because of its complicated nature and was dropped for the time being. In the plan outlined it was stated that fuel rationing involves inherent difficulties. In fixing food rations each item can be

determined separately, but for fuel rationing alternate heating agents—coal, coke, gas, electricity, and paraffin—must be covered to be equitable. The unit must be the household and not the individual. For individuals food requirements differ relatively little, but fuel needs vary with climate, with the size, structure, and internal equipment of the house, and with the size and occupations of the family. Another complication is that fuel is used and then paid for, if reference is made to electricity and gas, while coal may be bought and stocked. Coupons may be collected from purchasers of food in the shops, but fuel is delivered at the customer's residence and large numbers of agents would be needed to collect the ration coupons.

As there is still likelihood that fuel rationing may be adopted in the future, the main outlines of the Beveridge plan are here outlined. The scheme, embracing all fuels, is based on a point system, with interchangeable coupons. Rationing, under the plan, would be based on present needs, and not past consumption, which would favor the extravagant consumer and penalize the thrifty. Each consumer's ration would be the product of two factors, size of house and number of occupants.

Fuel-commodity ratios suggested were that 1 hundredweight of coal should be treated as equivalent to 1½ hundredweight of coke, 5 therms of gas, 90 units of electricity, and 2 gallons of paraffin, but these figures were to have further consideration. Provisionally, it was suggested that the number of fuel coupons issued with the clothing-ration book should be 15, giving a personal ration of 7½ hundredweight of coal a year or its equivalent in other fuels. Old persons requiring fewer clothing coupons might use clothing coupons to double their fuel ration.

Early in June it was announced by the Government that rationing would not be imposed until further opportunity was given to increase production and to secure voluntary reduction in consumption. The widest publicity was called for in securing these ends. At the same time the Government presented, in outline, a rationing plan based on the Beveridge point system and allowing, for example, 5 tons of coal or its equivalent annually for a family of 4 living in a 5-room house (excluding bath and kitchen). After a debate on the coal shortage in the House of Commons early in October, fuel rationing was again rejected.

Administration of the Coal Industry

Drastic alterations in the administration and control of the coal industry have been provided for in recent months. Although the measures taken do not fulfill the ultimate aims of labor—namely complete public control and ownership of the mines, with the mines worked to fulfill national requirements without regard to owners' profits—the workers have submitted more limited proposals for the requisitioning and the reorganization of the industry, some of which have been incorporated in the coal-industry changes made by the Government.

Nationalization of Royalties

Under the British system a number of persons and organizations (including the church) owned the mineral rights but not necessarily the land under which the coal lies, and for a consideration, known as a

royalty, granted mine operators the right to work the coal seams. The operators make all business decisions and any profits accruing after the payment of the royalties, wages, and other costs of operation accrued to them. The investments in sinking shafts, installing equipment, and other expenses are, of course, made by the operators.

In accordance with the terms of the Coal Act of 1938, the British Government acquired the royalties on all British coal mines on July 1, 1942. The former royalty holders are to receive compensation of £66,450,000 in exchange for the loss, and although the plans have not been completed for allocating the payment of royalties to the individuals and organizations heretofore entitled to receive them, they may claim quarterly payments from September 30, 1942, up to the date of settlement. Some 26,000 claims to royalties were taken over. Ten regional boards were established throughout the United Kingdom to determine the valuation of such holdings, but the war has necessarily delayed progress.

Beginning on July 1, royalty payments made by the mine operators were collected by the Government. The amount of royalty is based on the tonnage mined and was 4d. a ton before the Government took over. All royalties now collected are earmarked exclusively to cover the expenses of the Coal Commission, the body established under the 1938 law to administer its terms, and for the service of the debt contracted for purchase. When the operation is completed the royalties will be abolished.

CONTROL OVER OPERATION

An outline of the Government plan for reorganization of the coal industry was given in a "white paper" which appeared early in June 1942. The same document contained the plan for rationing, mentioned previously, that is being held in abeyance pending efforts to meet requirements through voluntary measures. For the present, therefore, the Government, as stated in the white paper, has "decided to assume full control over the operation of the mines, and to organize the industry on the basis of national service, with the intention that the organization now to be established will continue, pending a final decision by Parliament on the future of the industry." Orders affecting any mine are to be issued by some one person designated by the Government for this purpose. Mine managers will continue to be the employees of the operators but will be subject to removal should the Controller find that course necessary. Thus, private interests are subordinated to the overriding needs of increased production. Full control of mine operation is given to the Controller, acting under the Minister of Fuel, and mine operation is entirely separated from finance.

In answer to the question as to why the Government had not requisitioned or leased the mines, the Lord President of the Council stated to the House of Commons that the system used in the last war, whereby there was a guaranty of a minimum income to owners with a possibility of a supplementary payment if production exceeded a standard level, had not proven very satisfactory. Although the Government has no objection to the principle, which he inferred would be adopted if it was believed the war effort would be furthered by the action, it was concluded that the object could be obtained without interference with the financial structure of the industry. In conclusion

the Lord President made the point that he did "not wish to appear oversanguine about the prospects of the scheme we are now submitting. The history of the industry is not wholly encouraging. There are, however, some hopeful elements in the situation."

As a labor spokesman, Arthur Greenwood said that the labor movement had insisted for a generation on public ownership and control of the mines in the national interest. Under the nationalization of royalties on July 1 the Government took over the ownership of all the coal. The next step would be to assume ownership of the plant and the mine equipment to conserve this vital national asset to the public advantage and secure fully the willing and active cooperation of the miners. Requisitioning of the mines was asked for by labor in its modified proposals in order to get rid of the profit motive and to make possible an effective reorganization of the industry. He detected a spirit of compromise in the proposals of the Government, and stated that the miners could see no justification of the accrual of profits to owners who had no part in operational control. Mr. Greenwood foresaw that further steps would be required to mobilize fully the entire resources for winning the war.

Among the technical advantages the Government anticipates as a result of the reorganization are a better use of the technical skill available in the industry, some improvement in mechanization, but, above all, a direct increase in production through the concentration of work in the more productive mines and coal seams. The regional controllers will have the power to use the best seams. On the consumption side some economy is expected from the elimination of exports that are not absolutely necessary, by better fuel-burning methods, and by economies on the part of domestic users.

GOVERNMENT MACHINERY

Adoption of the coal plan necessitated the establishment of governmental administrative machinery to coordinate the work of existing public agencies dealing with various forms of fuel and to exercise the newly created Government powers. A Ministry of Fuel, Light, and Power was created and empowered to assume the functions formerly performed by the Mines Department and the Petroleum Department. The responsibilities of the Board of Trade regarding electricity and gas were also subject to transfer to the Ministry, bringing all functions of the Government relative to production and consumption of fuel and power under one Cabinet officer. The new Minister thus has full control over the operation of all coal mines and over the allocation of the coal that is mined.

A controller general and four directors are responsible for efficiency and volume of production, labor conditions and allocation, the distribution and allocation of coal, and financial arrangements, including advice on coal prices. A controller in each regional division exercises the Minister's powers to control mines and direct their managements. Each regional controller is to have the assistance of three directors concerned with (1) technical and engineering problems, (2) labor, and (3) gas, electricity, and the transport and distribution of coal. Each regional controller is to have a staff of technical assistants.

An advisory organization works parallel with the control organization. It consists of a National Coal Board and regional coal boards

representing the industry and, at the center, the consumer. Appointments are made by the Minister of Fuel, Light, and Power. Membership in the National Coal Board consists of the Minister as chairman, the Controller General as vice chairman, the vice chairmen of the regional coal boards, pit managers and colliery technicians, and persons representing coal distribution as well as coal consumers. The functions of the advisory body are to consider the planning of production, means of securing improvements in efficiency, the provision of mining equipment, manpower and labor-productivity questions, and the welfare and health of the miners.

Regional boards over which the controller presides include representatives of coal owners, miners, managers, and technical staff. Both the National Coal Board and the regional boards appear to have advisory functions only. The regional controllers are to hold and exercise full and undivided responsibility for the policy and general conduct of mining operations in their regions "with the advice of the regional control board" and the Minister is to take into consideration the recommendations of the National Coal Board.

Daily management of the mines remains in the hands of the mine managers, who can be removed for incompetence, however. The Minister can take over the management of the mines in such cases and replace the manager with one of his own choice.

The Government, although planning to make use of the advice of the national and regional boards, has refused to vest control of the industry in a semiautonomous board made up of employers, employees, and Government representatives, such as the Mine Workers' Federation recommended and the Labor Party sponsored. Labor is dissatisfied both with the position accorded these bodies and with the preponderance of influence given to operators under the plan. According to Arthur Greenwood in an address made in the House of Commons on June 10, 1942, the board pit managers and colliery technicians who are paid by the mine operators are likely to express the management point of view.

NATIONAL WAGES BOARD

The decision of the Government to reestablish the National Wages Board which was previously mentioned in connection with the recent wage-rate increase, was very gratifying to labor. Wages for the mining industry were fixed nationally in the last war and for a number of years afterward. The system was abandoned in 1926. Restoration of the national wage-fixing machinery and the increased recognition accorded labor on pit production committees and the national and regional advisory bodies should be important influences in building up the morale of British mine workers, who have worked under pressure in the war period without the customary summer break when demand is ordinarily at low ebb.

Merger of Unions

Modification in union organization is a logical outgrowth of unified Government control of the coal industry and national wage fixing. At a recent meeting of the Mineworkers' Federation of Great Britain the 21 district associations of miners voted to support a merger of their respective organizations into a single national union. Mine

leaders have long looked forward to welding these autonomous units into a single body. During the more than half century that the Mineworkers' Federation has existed it has given national leadership on many occasions but has remained only a close federation of independent unions, each of which exercised undisputed authority in its own coal fields, maintaining its own scale of dues and benefits, and in control of its individual funds.

SOURCES.—Great Britain: Parliament, House of Commons, Debates, June 10, 1942, and Tenth Report of the Select Committee on National Expenditures, Session 1941–42; Board of Trade, Fuel Rationing (Cmd. 6352); Ministry of Labor Gazette, August 1939, December 1941, and January and March 1942. British Information Services (New York), Press releases R. 1440 and 1567. Economist (London), May 2 and 30, June 6 and September 5, 1942. Manchester Guardian, June 4, 9, and 12, 1942. U. S. Department of Labor, Bureau of Labor Statistics, Monthly Labor Review, January and May 1939, December 1941, and March 1942. Reports from the United States Embassy, London, Nos. 375, 482, 4078. Daily press of the United States.

LABOR SITUATION IN NORWAY [1]

RECENT developments in the labor situation in Norway clearly indicate the purpose of the German authorities to utilize the labor force and the industries of Norway in the interests of the German war effort and of the German civilian population. All industrial plants not directly serving the Germans are gradually being closed down in order to make their workers "unemployed." The only choice of these workers then is between starvation or "voluntary" labor for the Germans either in Germany or in Norway.

The plan of the Quisling Government to amalgamate the Norwegian labor unions into larger units, for better control over them, has hitherto been unsuccessful. Recently, however, there have been some signs of a renewed drive toward this end, especially in the war production industries, such as building trades, iron and steel industries, and machine shops. According to the Swedish press, in the districts where extensive military fortification work is being carried on by the Germans, the labor unions are completely controlled by them.

Open conscription of workers in Norway for German fortification work was introduced in June 1942; because of its unpopularity, conscription is now being carried on by indirect methods.

Repeatedly it has been officially denied that the drafted workers are being taken to Germany, but it has been suggested that "rebellious workers" would be deported. It appears, therefore, that although the Germans are avoiding the opprobrium of deportation of Norwegian workmen to Germany, they are in fact securing cheap labor through the deportation of political prisoners and are thereby also removing the "dangerous elements" from the exposed coasts of Norway. Although it has been officially stated by the Nasjonal Samling [2] authorities that the only compulsion in recruitment of labor would apply to farm, forest, and other work of first necessity for the subsistence of the population itself, the actual procedure has been to transfer the regular workers in these lines to defense schemes while conscripted workers take their place.

An idea of the extent of the German defense projects in Norway may be gained from an estimate, published in the Swedish press,

[1] Data are from report from Herschel V. Johnson, United States Legation at Stockholm.
[2] The Quisling parliament.

which fixes the number of workers already employed in this work at 100,000. The new requirements are set at 15,000 workers to begin with, but gradually more and more will be needed. The total requirements of the German road-building organization in Norway has been estimated to be 70,000 workers. From information which became available in June it appears that the intention is to have some 100,000 industrial workers transferred to the land by September, thus releasing agricultural labor for defense schemes.

The Provincial Labor Bureaus have been given exact instructions as to the methods to be followed in the actual recruitment of labor. In order to insure the "loyal collaboration" of these bureaus the latter are being put under strict control.

The attitude of the workers under these circumstances is, as before, one of silent but firm resistance to nazification, and a boycott of the new institutions created by Nasjonal Samling. The Norwegian workers, it appears, want to avoid unnecessary bloodshed since they are not strong enough to offer an effective resistance, but they refuse, as they say, "to sell their souls."

The methods of compulsion in regard to the working people in Norway have met with a very sharp reaction in the Swedish press. The treatment which the Norwegian workers are receiving in the German-occupied countries is characterized as "a new era of slavery."

Industrial Disputes

STRIKES IN SEPTEMBER 1942

THE number of strikes occurring in September declined about 17 percent as compared with August, although the number of workers involved and the amount of idleness resulting were about the same in both months, according to preliminary estimates of the Bureau of Labor Statistics.

The number of new strikes affecting war work declined from 195 in August to 156 in September. The number of workers involved was about the same in each month, but the amount of idleness during war strikes in September was 20 percent greater than in August and greater than in any preceding month since the war started.

September strike activity was substantially lower than in September 1941. The number of strikes was only 62 percent as great and the number of workers involved and the amount of idleness were only about one-fourth as great.

The largest strikes in September were (1) the 3-day strike at the Alabama Dry Dock and Shipbuilding Co. in Mobile, Ala., involving more than 11,000 workers, (2) a 4-day strike involving more than 10,000 workers at the East Alton Manufacturing Co. and the Western Cartridge Co. in East Alton, Ill., and (3) the strike of about 4,000 Haverhill, Mass., shoe workers, which lasted more than a week.

It is estimated that strike idleness in September amounted to 0.07 percent of available working time, about the same as in the preceding month.

Trend of Strikes, January to September 1942

Month	All strikes [1]			Strikes affecting war work [2]		
	Number of strikes beginning in month	Number of workers involved	Number of man-days idle	Number of strikes beginning in month	Number of workers involved	Number of man-days idle
1942						
January	155	32,500	390,000	27	11,605	46,197
February	190	57,000	425,000	50	24,587	118,700
March	240	65,000	450,000	66	34,957	166,680
April	310	55,000	375,000	91	26,255	173,513
May	275	58,000	325,000	125	44,891	137,330
June	350	100,000	550,000	171	78,627	254,653
July	400	87,500	450,000	198	74,812	233,614
August	350	80,000	450,000	195	70,352	266,353
September	290	80,000	450,000	156	71,912	318,892

[1] Figures are not final but are subject to change as later information is received.

[2] As determined by a Joint Committee of representatives from the War, Navy, and Labor Departments, Maritime Commission, War Labor Board, and War Production Board. The Bureau of Labor Statistics does not participate in the selection of these strikes, but it does furnish the statistics after the Joint Committee determines which strikes affected war work.

In the 9-month period—January to September 1942—strike activity was at a much lower level than in the corresponding period of 1941. The number of strikes was 74 percent as great as in 1941; the number of workers involved, 32 percent; and the number of man-days idle, only 20 percent.

ACTIVITIES OF UNITED STATES CONCILIATION SERVICE, SEPTEMBER 1942

THE United States Conciliation Service, during September, disposed of 1,168 situations involving 782,407 workers (table 1). The services of this agency were requested by the employers, employees, and other interested parties. Of these situations 161 were strikes and lock-outs involving 95,491 workers; 598 were threatened strikes and controversies involving 336,824 workers. Altogether, 112 disputes were certified during the month to the National War Labor Board, and in 41 cases other agencies assumed jurisdiction. The remaining 256 situations included investigations, arbitrations, requests for information, consultations, etc.

TABLE 1.—*Situations Disposed of by United States Conciliation Service, September 1942, by Type of Situation*

Type of situation	Number	Workers involved
All situations handled	1,168	782,407
Disputes	759	432,315
Strikes	160	94,791
Threatened strikes	186	124,666
Lockouts	1	700
Controversies	412	212,158
Other situations	256	92,833
Investigations	51	21,237
Technical services	14	17,935
Arbitrations	95	49,345
Requests to conduct consent elections	2	440
Requests for verification of union membership	1	479
Requests for information	6	8
Consultations	60	137
Special services of Commissioners	9	3,225
Complaints	18	27
Disputes referred to other agencies during negotiations	153	257,259
To National War Labor Board [1]	112	223,243
To National Labor Relations Board	31	8,693
To other Federal agencies	5	18,813
To Wage Adjustment Board	3	6,380
To State agencies	2	130

[1] During the month 81 cases involving 51,112 workers were adjusted, subject to arbitration or approval of the wage provisions by the National War Labor Board.

The facilities of the Service were used in 26 major industrial fields, such as building trades and the manufacture of foods, iron and steel, textiles, etc. (table 2), and were utilized by employees and employers in 45 States, the District of Columbia, and Puerto Rico (table 3).

TABLE 2.—*Situations disposed of by United States Conciliation Service, September 1942, by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries	912	689,574	256	92,833	1,168	782,407
Building trades	47	20,178	26	4,773	73	24,951
Chemicals	30	35,085	6	1,462	36	36,547
Communications	11	28,432	3	4	14	28,436
Domestic and personal	10	6,650	6	791	16	7,441
Electrical equipment	24	40,537	10	1,216	34	41,753
Food	84	35,992	27	26,664	111	62,656
Furniture and finished lumber	25	6,583	4	445	29	7,028
Iron and steel	187	150,822	30	8,958	217	159,780
Leather	10	3,023	11	7,066	21	10,089
Lumber	23	14,531	5	985	28	15,516
Machinery	61	23,047	11	396	72	23,443
Maritime	2	257	1	1	3	258
Mining	16	16,083	4	527	20	16,610
Motion pictures	1	14			1	14
Nonferrous metals	44	25,143	8	3,696	52	28,839
Paper	10	2,323			10	2,323
Petroleum	7	7,235	3	5,045	10	12,280
Printing	8	1,154	3	985	11	2,139
Rubber	6	2,800	1	40	7	2,840
Stone, clay, and glass	41	13,140	6	353	47	13,493
Textile	58	43,297	28	3,323	86	46,620
Tobacco	5	2,730			5	2,730
Trade	47	14,591	9	3,418	56	18,009
Transportation	57	32,099	19	4,218	76	36,317
Transportation equipment	54	138,074	12	15,780	66	153,854
Utilities	12	16,716	3	146	15	16,862
Unclassified	32	9,038	20	2,541	52	11,579

TABLE 3.—*Situations Disposed of by United States Conciliation Service, September 1942, by States*

State	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	912	689,574	256	92,833	1,168	782,407
Alabama	17	25,928	3	2,228	20	28,156
Arizona	6	1,326	1	1,100	7	2,426
Arkansas	9	2,135	3	15	12	2,150
California	98	51,262	22	17,099	120	68,361
Colorado	5	10,265	1	800	6	11,065
Connecticut	9	8,585	2	4	11	8,589
District of Columbia	5	297	2	275	7	572
Florida	17	4,673	8	152	25	4,825
Georgia	6	3,426	1	1	7	3,427
Idaho	4	257	1	690	5	947
Illinois	62	44,316	20	4,609	82	48,925
Indiana	28	12,889	9	5,498	37	18,387
Iowa	18	17,660	2	26	20	17,686
Kansas	7	2,763	1	1	8	2,764
Kentucky	13	9,505	3	942	16	10,447
Louisiana	13	3,113	2	4	15	3,117
Maine	1	1,600	1	150	2	1,750
Maryland	13	58,614	3	203	16	58,817
Massachusetts	15	5,441	25	7,218	40	12,659
Michigan	77	41,651	18	1,905	95	43,556
Minnesota	17	4,053	1	8	18	4,061
Mississippi	5	1,068	1	1	6	1,069
Missouri	24	11,997	8	786	32	12,783
Montana	4	12,092	1	14	5	12,106
Nebraska	6	1,423			6	1,423
Nevada			1	45	1	45
New Hampshire	2	250			2	250
New Jersey	29	36,100	4	453	33	36,553
New Mexico	5	1,965	1	20	6	1,985
New York	63	67,957	30	18,534	93	86,491
North Carolina	13	2,182	3	205	16	2,387
North Dakota	1	28			1	28
Ohio	91	85,499	17	3,133	108	88,632
Oklahoma	11	2,082	6	506	17	2,588
Oregon	9	9,595			9	9,595
Pennsylvania	97	75,448	18	7,041	115	82,489
Puerto Rico	4	4,128	3	152	7	4,280
Rhode Island	2	1,808	3	1,475	5	3,283
South Carolina	4	1,829	4	642	8	2,471
Tennessee	13	3,123	3	30	16	3,153
Texas	18	10,438	7	4,416	25	14,854
Utah	1	200	4	956	5	1,156
Virginia	14	19,691	1	2	15	19,693
Washington	19	7,886	5	11,016	24	18,902
West Virginia	14	18,770	2	63	16	18,833
Wisconsin	22	4,125	5	415	27	4,540
Wyoming	1	131			1	131

Health and Industrial Hygiene

MEDICAL CARE FOR FARM WORKERS IN CALIFORNIA AND ARIZONA

THE Agricultural Workers Health and Medical Association, a nonprofit organization providing medical care for migrant farm workers in California and Arizona, was established in March 1938 by the Farm Security Administration and California State agencies. The association was incorporated in California, but was given legal authority to do business in other States.

Since its incorporation more than 80,000 persons have received medical treatment, and machinery has been perfected to meet the medical demands of the scores of thousands of farm workers who must continually follow the crops, and who, because of lack of State and county residence, are ineligible for medical care paid for out of the funds of State and county administrations.[1]

In a report on costs of medical care, the association analyzes its experience during a period of approximately 3 years.[2] During this period more than $2,650,000 was paid to doctors, dentists, hospitals, nurses, and pharmacists. In order to control expenditures for individual disorders, all expenditures had to be authorized by the association in advance. The present survey was made to determine whether control of expenditures in terms of dollars is adequate and whether the calculation of some other unit of measurement was of importance from the standpoint of budget administration and control. The study also affords a comparison of unit costs of clinics and referral programs (i. e., referring patients to physicians and dentists who have agreed to participate in the program).

Eligibility for membership in the association was open in Arizona to nonresident agricultural workers with less than 3 years' State residence and below-subsistence incomes; while in California, up to February 1940, it was open to such workers with less than 1 year's residence, but after that date it was put upon a 3-year basis. The eligibility ruling was finally changed to conform strictly to the FSA requirements, and now membership in both States is extended for periods of 1 year at a time, up to a total of 3 years from the date of entrance into the State. However, there are some modifications of these requirements both as to income and residence, so that families are not suddenly cut off from necessary care, or forced back on relief by large medical bills.

[1] U. S. Department of Agriculture, Farm Security Administration, Press release 72942, revised, July 1942.
[2] The Costs of Medical Care in the Agricultural Workers Health and Medical Association, by William Goldner. San Francisco, Agricultural Workers Health and Medical Association, 1941.

Membership in the association in the two States rose from 2,313 families and 9,755 persons in July 1938 to 13,486 families and 54,961 persons in June 1941. The fact that the volume of applications for membership, both new and reopened or extended, has had a steady upward trend, except for remissions due to seasonal influences, suggests that the influx of agricultural workers into these regions has not ended.

Two types of programs—the referral and the clinic programs—are operated by the association. Under the first, members are treated by doctors of their own choosing and the doctors are paid by the association upon completion of the authorized medical care. This program has been more widely used in California because the labor population is spread out over greater areas; in Arizona, because of the greater geographic concentration of agricultural workers, the clinic program has been developed more intensively. However, in California, where the demand for labor causes large numbers to be encamped in a small area for a few weeks, mobile clinics have been used.

Average Incidence of Illness and Costs of Medical Care

Among the members of the association, only the medically treated illnesses are reported, so that there is a tendency in the figures toward understatement of the incidence of illness. The average sickness rate in the two States from July 1939 to June 1941 ranged from 6.4 per 100 members in September 1939 to 13.1 in January 1941. These rates are said to be remarkably high when compared with other studies of morbidity, and reflect the cumulative effect of continued neglect, resulting from an underprivileged position in a depressed economy. There has been a steady increase in Arizona in the proportion of illness handled in the clinics. The same type of increase, but at a lower rate, has occurred in California.

An analysis of the data for referral illnesses in a 10-percent sample of the groups studied shows the percentage distribution of illnesses among the different age groups. The age distribution for the group shows a much greater proportion of persons under 10 years of age than was shown by the population data secured in the National Health Survey in 1935. The distribution of referral illnesses for the group, based on the membership population, showed a high percentage of sickness among children under 5—16.8 percent—while more than half of the illnesses were among persons aged 15 to 45, with 19.4 percent in the age group 25 to 34.

In measuring the costs of medical service, the charges were reduced to units described as "patient-months" and "units of illness." A "patient-month" was defined as a calendar month in which charges were authorized for an individual. Thus, all charges for a specific disease for an individual which are authorized in successive months are split so that the portion authorized in the first month is grouped as one unit of charge and that authorized in the second month is grouped as a second unit.

The following table shows the payments for different types of services per patient-month from July 1939 to June 1940.

Referral Expenditures and Average Charges per Patient-Month in Arizona and California, July 1939 to June 1940, by Type of Service

Type of service	Total referral expenditures	Patient-months	Average charge per patient-month
Total	$781,295.09	38,246	$20.43
Doctors	382,412.85	29,777	12.84
Dentists	28,485.75	5,471	5.21
Nurses	4,813.83	138	34.88
Hospitals	332,372.81	8,929	37.22
Special diets	7,405.88	1,418	5.22
Miscellaneous	12,745.61	1,912	6.67
Prescriptions	13,058.56	(1)	(1)

[1] Not obtainable.

Almost half—48.9 percent—of the expenditures shown were for the payment of doctors, and 42.5 were for hospital care, while 3.7 percent were for dental care, 0.6 percent for nursing service, 1.0 percent for special diets, 1.7 percent for prescriptions, and 1.6 percent for miscellaneous expenditures.

Industrial Accidents and Safety

CAUSES AND PREVENTION OF INJURIES IN THE MANUFACTURE OF LUMBER PRODUCTS, 1941

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Summary

DISABLING industrial injuries reduced the productive capacity of 1 in every 18 employees in the finished-lumber-products industries during 1941. In comparison with the previous year, the 1941 injury-frequency rate for identical furniture-manufacturing plants was 22 percent higher; for plants manufacturing wooden containers it was 16 percent higher; and for plants manufacturing miscellaneous lumber products it was about 24 percent higher.[1]

Even in normal times this record would be startling. Coming as it did at a time when all industries were adjusting themselves to meet the increased demands for rapid and efficient production of materials needed for war or as substitutes for other materials which were becoming unavailable, the import of these figures becomes doubly significant as an indicator of the problems which must be overcome in order to preserve all available manpower for production to win the war.

In order to amplify and verify the findings of a previous study of the injuries which occurred in woodworking plants during 1940, [2] the Bureau of Labor Statistics again surveyed the injury experience of these industries during the year 1941. The present report, covering the results of the 1941 survey, is based upon the records of 1,054 furniture-manufacturing plants, 315 plants manufacturing wooden containers, and 222 plants manufacturing miscellaneous lumber products. These plants had a total of over 153,000 employees, who worked over 306 million man-hours during the year.

Confirming the previous findings, the most hazardous of the three manufacturing groups was that composed of establishments manufacturing wooden containers. The average of 44.7 disabling injuries for every million employee-hours worked in these plants was nearly two and one-half times as high as the average of 18. 1 for all manufacturing industries in 1941. Among the major manufacturing industries, it was exceeded only by the frequency rates for foundries, logging camps, sawmills, and concrete, gypsum, and plaster-products plants.[3]

The average frequency rate for plants manufacturing miscellaneous lumber products (31. 3) was somewhat lower than that of the wooden-

[1] See report on Industrial Injuries in the United States During 1941, based upon the Bureau's annual survey covering industrial injuries in all industries, in Monthly Labor Review for September 1942 (p. 501).
[2] See Monthly Labor Review, October 1941, p. 945 (or B.L.S. Serial No. R-1361): Causes and Prevention of Injuries in the Manufacture of Lumber Products, 1940.
[3] See Monthly Labor Review for September 1942 (p. 507).

container group, but was still considerably above the average for all manufacturing industries. The furniture-manufacturing plants, which had the lowest frequency rate among the three groups, averaged 21.7 disabling injuries per million employee-hours worked.

TABLE 1.—*Summary of Injury Data for 1,591 Establishments Manufacturing Furniture, Wooden Containers, and Miscellaneous Lumber Products, 1941*

Item	Furniture	Wooden containers	Miscellaneous lumber products
Number of establishments reporting	1,054	315	222
Average number of employees	107,100	31,500	14,400
Total employee-hours worked	215,637,000	60,859,000	29,671,000
Frequency rate (average number of disabling injuries per million hours worked)	21.67	44.71	31.34
Severity rate (average number of days lost per thousand hours worked)	1.83	3.47	3.12
Disability distribution (percent of total number):			
Death and permanent total disability	.2	.4	.3
Permanent partial disability	7.8	5.1	6.8
Temporary total disability	92.0	94.5	92.9
Average time lost per disabling injury (days):[1]			
Permanent partial disability	739	775	979
Temporary total disability	13	14	15

[1] Each death or permanent-total disability is charged at 6,000 days.

Although the group averages present a relatively unfavorable picture of safety achievement in the woodworking industries, analysis of the records of individual establishments indicates that safety measures can be and have been made effective in many plants. Over 43 percent of the reporting plants in the furniture-manufacturing group had no disabling injuries in 1941. Similarly, 27 percent of the wooden-container plants and 37 percent of those manufacturing miscellaneous lumber products had perfect records. A majority of these were plants which employed fewer than 100 workers each, but the honor roll also included 7 furniture plants, 1 wooden-container plant, and 1 plant making miscellaneous lumber products, each with over 200 employees. An additional 8 percent of the furniture plants and 5 percent of the plants in each of the other two groups held their frequency rates under 10, which is generally recognized as good safety performance in hazardous industries. These plants included a number which employed over 400 workers each.

In sharp contrast to the better records just enumerated, however, a considerable number of plants in each of the industry groups had exceedingly high frequency rates. In fact 3 percent of the furniture plants, 13 percent of the wooden-container plants, and 10 percent of the miscellaneous-lumber-products plants had frequency rates ranging above 80, even reaching above 200 in a few instances. This wide distribution of individual plant frequency rates cannot be considered purely fortuitous. Woodworking is undeniably a hazardous industry and may be expected to produce a high frequency of injuries if no determined effort is made to prevent their occurrence. The record definitely indicates that many plants in these industries are entirely indifferent to safety.

The proportion of the total number of injuries reported in each of the three industry groups resulting in death was relatively low in comparison to the national average for all manufacturing industries.[4]

[4] See Monthly Labor Review for September 1942 (p. 502).

The proportion resulting in permanent partial disabilities, however, greatly exceeded the all-industries average in both the furniture and miscellaneous-lumber-products groups, but conformed closely in the wooden-container group. Temporary disabilities, as measured in resulting lost time, were generally somewhat less severe than the average for all manufacturing. On the average, each temporary disability resulted in the loss of 15 days in the miscellaneous-lumber-products group, 14 days in the wooden-container group, and 13 days in the furniture group, as compared with an average of 16 days per temporary disability in all manufacturing.

The Hazards of Woodworking

Woodworking operations have long been considered to be inherently more hazardous than those involved in most other manufacturing processes. The annual studies of work injuries in all industries conducted by the Bureau of Labor Statistics have consistently shown an injury-frequency rate for furniture manufacturing somewhat higher than the average for all manufacturing. The rates for wooden-container manufacturing and for the group of miscellaneous-lumber-products plants have generally been considerably higher than the rate for the furniture group.

Many of the hazards involved in woodworking are directly related to the physical characteristics of the material being handled. The raw-lumber stock frequently comes in sizes that are both heavy and awkward to handle. Loading and unloading the stock, piling for storage, and transporting it to the processing point are generally hand operations in which the workers are exposed to a variety of hazards such as strains from lifting, being struck by falling lumber, lacerations from splinters or rough stock, falls from lumber piles, etc. Generally these are hazards which are most effectively overcome by instruction in safe handling methods, close supervision to see that safe methods are followed, and close attention to good housekeeping procedures.

The hazards connected with shaping and forming the raw stock into the finished commodities are generally more spectacular and frequently more obvious than those involved in material handling. Much of the shaping and forming process involves the use of sharp cutting tools, many of which are power driven and operate at exceedingly high speed. The operators of these machines must work close to the cutting parts, and in the absence of adequate guards are exposed to severe injuries, a high proportion of which result in permanent disabilities.

Considerable numbers of woodworking machines are admittedly difficult to guard properly. Moreover, the universal use of such guards as have been developed is far from realization. In many instances guards definitely reduce the efficiency of the machines. Many machines are multipurpose units and require different types of guards for each separate use. The inconvenience and time involved in changing or readjusting guards with each change in the use of a machine often lead to its use without a guard, particularly when changes are required at frequent intervals.

Special-purpose machines are quite common in specialty woodworking plants. Each of these presents individual hazards and particular

problems in guarding. Basically, however, woodworking processes can be classified into a very few general categories. Primarily the stock must be cut to size. This is generally accomplished through the use of circular saws or band saws. In the operation of these machines the principal hazard is that the operator's hands may come into contact with the rapidly moving teeth of the saw as he pushes the material past the blade. A slight miscalculation of distance, a knot, cross grain, or damp spot in the wood sufficient to alter its resistance to the saw, thereby causing it to vibrate or to change the speed with which it accepts the cut, are sufficient to throw the operator's hand into the blade if it is unguarded. The fact that the open spaces between the teeth of a saw are much more visible at high speeds than are the saw teeth themselves often renders the moving teeth practically invisible and makes it difficult for the operator to judge how close it is safe to come to the cutting point.

Circular saws, particularly when used for ripping (i. e., cutting parallel to the grain of the wood), also present the danger of kick-backs. This occurs when the stock being cut springs together so as to bind against the back or up-riding edge of the saw. The terrific power of the saw is thereby transmitted upwardly to the stock, which usually is held down only loosely. Instead of resulting in further cutting, as it would were there proper resistance, this misapplied energy tends to throw the stock up and back with great force. Very serious injuries frequently occur when the operator, or others, happen to be in line with the saw at the time the stock is kicked back. For practically all sawing operations, however, it is possible so to guard the cutting blade that serious injuries become nearly impossible. Hoods, which automatically maintain downward pressure upon the fed stock, and completely cover the moving blade of a circular saw, will prevent accidental contact with the cutting teeth. Properly aligned metal strips, called splitters, fixed behind the saw blade will spread the cut wood to prevent its binding on the back of the saw, and "anti-kick-back dogs" may be applied, which will restrain the backward movement of the stock if binding should occur. Band saws generally may be readily guarded by the application of fixed enclosures which will admit only the stock to be cut.

The smooth finishing of flat wood surfaces is generally accomplished through the use of planers or jointers, followed by a touch-up on a sanding machine. Jointers and planers generally have cylindrical or rectangular heads which hold two or more wide cutting blades. These heads usually are placed in horizontal openings extending across the machine's working surface and may be set to project more or less above that surface, depending upon the depth of cut desired. The heads revolve at very high speed and the knives shave small chips from the surface of the stock as it is pushed across the opening.

The principal operating hazard of the jointer is that the operator's hand may come into contact with the cutting head as he feeds the stock. Some pressure is usually required to hold the stock in contact with the cutter, so that a slip may easily result in the operator's actually forcing his hand into the blades. When rectangular or square heads are used, this usually means the complete amputation of several fingers. When the circular or so-called safety head is used, leaving only a small opening between the head and the work surface, the results of such a slip may be somewhat less serious.

Planers operate similarly to jointers, except that they commonly make a wider cut and are used generally for surfacing the lumber faces rather than the edges. Quite commonly planers have an automatic feed mechanism so that the operator need not place his hands near the knives. He is, however, exposed to contact with the feed rolls, which present a severe pinching hazard, or may even draw his hand and arm into the machine.

In the use of sanders the operator is not exposed to cutting hazards, but may receive severe abrasions or burns if he accidentally comes into contact with the rapidly moving sandpaper belt. Such abrasions or burns may easily become infected from the grit which the belt may embed in the flesh.

Shapers, which are probably the most difficult woodworking machines to guard effectively, consist basically of circular cutters which usually revolve at a very high speed about a vertical axis. In most instances the stock is fed against the cutting head by hand, and in cutting intricate shapes it is frequently necessary for the operator's hands to come very close to the knives. The hazard of coming into contact with the cutter is particularly prevalent when small pieces of stock are being worked. The use of jigs to hold the work in such instances is always to be recommended.

The shaping of wood stock into cylindrical, oval, or spherical shapes is generally accomplished through the use of lathes. On the standard-type lathe the stock is held between two opposing pivots and is rapidly revolved about its horizontal axis. The cutting tool is stationary and may be held against the revolving stock by a clamp upon the machine or may be hand-held. The operator is not, therefore, exposed to the very severe cuts which are inflicted by moving tools, but may receive severe gashes from the tool if it should be jarred or thrown against him. Particularly hazardous are the possibilities that the rapidly revolving stock may come loose from the holding pivots or that loose clothing may entangle and wrap around the stock. Flying chips may also present an eye hazard in lathe operations.

In a variety lathe the revolving stock is usually held only at one end, and revolving circular cutters are used instead of a stationary cutting tool. These machines are usually automatic and the greatest hazards arise when they are being adjusted for the desired cuts.

Among other common woodworking machines, the operation of which involves considerable hazard, are boring and drilling machines; power presses; clippers, which operate upon the guillotine principle; and nailing machines. In the operation of some woodworking machines, such as jointers, lathes, boring and drilling machines, only the operator normally comes into contact with the hazards connected with the point of operation. In the case of others, such as saws, planers, and clippers, the cut pieces are frequently removed from the machine by helpers called off-bearers. The off-bearer often must come close to the cutting points, and must do so under the added hazard of not being in control of the starting or stopping of the machine.

In addition to the hazards at the point of operation, woodworking machines frequently present further dangers. Circular saws, for instance, extend below the saw table and can easily whip off a hand or finger of anyone who carelessly reaches under the working surface. Power is often transmitted to the machines by means of shafting and belts, which, if unguarded, may be a positive source of danger not

only to the machine operators but also to all others who may have to approach them. The accumulation of wood shavings, sawdust, and scrap lumber on the floor around woodworking machines can also add immeasurably to their hazards. In addition to the injury possibilities normally arising from a slip or fall on such material, there is always the possibility of falling against or reaching directly into the cutting points of an adjacent machine in an effort to catch one's self. Good housekeeping in woodworking shops cannot be overrated as a safety measure.

Accident Types and Agencies

FURNITURE MANUFACTURING

The pattern of accidents revealed in the 1941 reports from furniture-manufacturing establishments corresponds almost exactly with the distribution shown in the previous year's study. Substantiating the generally accepted theory that effective guarding of machines can do more to reduce the hazards of woodworking than any other single safety measure was the fact that nearly a third of all the reported injuries were directly connected with machine operations. Over 24 percent of the reported disabilities resulted from some part of an employee's body coming into contact with a power tool at the point of operation; nearly 4 percent resulted from workers' being struck by stock which had been kicked back by machines; and more than 4 percent arose from employees' being caught in, on, or between moving parts of machinery, gears, or conveying equipment (table 2).

The great need for more intensive effort to eliminate machine hazards, however, is only partly indicated by this comparison in terms of occurrences. Review of the resulting disabilities invests machine accidents with an importance far exceeding that so obviously demonstrated in the simple consideration of their number.

Fully 20 percent of the injuries connected with machines resulted in some form of permanent impairment, compared with a ratio of only 2 percent for all injuries not connected with machines. Over 81 percent of the permanent disabilities experienced in the reporting furniture-manufacturing plants were inflicted by machines.

Power saws were the outstanding injury producers among the various types of mechanical equipment. Direct contact with the cutting teeth of these machines caused 10 percent of all the injuries, and the stock kicked back in their operation caused approximately an additional 4 percent. One in every five of the cases involving contact with saw blades resulted in permanent disability. Shapers are far less extensively used than saws, but they accounted for over 4 percent of all the injuries, and more than a third of these injuries resulted in permanent disabilities. The use of jointers produced only 2.2 percent of all the injuries, but an exceedingly high proportion (38 percent) of these injuries resulted in permanent disabilities.

Other important accident categories, as measured by the volume of disabling injuries which they produced, were slips and overexertion, which accounted for nearly 12 percent of all the injuries; falls, which accounted for nearly 8 percent of the injuries; being struck by hand tools, which caused almost 7 percent of the injuries; and forcible contact with splinters, which produced over 5 percent of the disabilities. Many of the injury-producing slips and falls might easily have

been prevented through the simple application of better housekeeping methods providing for the prompt removal of scrap and sawdust from the floor in work spaces. Analysis of accidents involving hand tools generally reveals that the tools were defective or dull, or that they were improperly or inexpertly used. Periodic tool inspections, closer supervision, and training in their use are obvious methods of reducing hand-tool accidents.

WOODEN CONTAINERS

In general, the accident distribution for plants manufacturing wooden containers corresponded to that shown for the furniture-manufacturing group. Machines were directly connected with over 30 percent of the disabilities, compared with about 32 percent in the furniture plants. Measured in terms of the resulting disabilities, 14 percent of the machine-inflicted injuries resulted in death or permanent impairments. As in the furniture industry, these serious machine accidents accounted for 80 percent of all the permanent disabilities reported by the wooden-container plants.

The manufacture of wooden containers involves much less close fitting and surfacing than is the case in furniture manufacturing, and therefore utilizes fewer shapers, lathes, jointers, or sanders. Power saws, however, are indispensable. As a result, the injuries charged to saws in this industry were proportionately more frequent than in the furniture plants. Direct contact with moving saw teeth accounted for 12 percent of all the container-plant disabilities. Kick-backs accounted for a further 4 percent.

Closely following the pattern indicated in the furniture industry, slips and overexertion accounted for 12 percent of the injuries in wooden-container manufacturing; falls caused nearly 9 percent; contact with splinters produced 5 percent; being struck by falling lumber accounted for almost 5 percent; and being struck by hand tools accounted for 4 percent.

MISCELLANEOUS LUMBER PRODUCTS

In the miscellaneous-lumber-products industry, which includes the manufacture of a great variety of items such as window and door screens, window shades, venetian blinds, excelsior, matches, lasts and related products, mirror and picture frames, etc., 36 percent of all the reported injuries and 80 percent of the permanent disabilities resulted from accidents involving machines. Striking against moving parts at the point of operation caused the majority of these injuries, as was the case in the other woodworking industries. Kick-backs accounted for nearly 4 percent of the injuries, and accidents in which workers were caught in, on, or between machinery, gears, or conveying equipment accounted for nearly 6 percent.

Slips and overexertion also produced a comparatively large proportion (over 13 percent) of the injuries in this industry. Falls were responsible for nearly 8 percent of the disabilities; striking against splinters and being struck by falling lumber each produced more than 5 percent of the injuries; and being struck by hand tools accounted for 4 percent.

TABLE 2.—*Injury Rates, by Type of Accident, for 1,591 Lumber-Products Establishments, 1941*

Type of accident	Number of disabling injuries resulting in—			Total number of disabling injuries	Percent of classifiable injuries [2]	Total days lost	Percent of classifiable days lost [2]	Injury rates	
	Death and permanent total disability [1]	Permanent partial disability	Temporary total disability					Frequency	Severity
Furniture, except metal (1,054 establishments, 107,100 employees, 215,637,000 employee-hours worked)									
All types	(3) 11	366	4,296	4,673	------	394,080	------	21.67	1.83
Striking against	(2) 2	271	1,541	1,814	39.4	215,430	55.2	8.41	1.00
Machines	(2) 2	255	863	1,120	24.4	197,053	50.4	5.19	.92
Circular saws	0	37	149	186	4.0	25,810	6.6	.86	.12
Swing saws	0	1	22	23	.5	591	.2	.11	(3)
Band saws	(1) 1	11	60	72	1.6	15,425	4.0	.33	.07
Saws, other	0	45	140	185	4.0	28,414	7.3	.86	.13
Shapers	0	68	130	198	4.3	53,711	13.5	.92	.26
Lathes	0	4	12	16	.3	4,002	1.0	.07	.02
Jointers	(1) 1	38	64	103	2.2	35,294	9.1	.48	.16
Sanders	0	7	76	83	1.8	4,187	1.1	.38	.02
Machines, miscellaneous	0	44	210	254	5.7	29,619	7.6	1.18	.14
Lumber	0	0	66	66	1.4	1,073	.3	.31	(3)
Splinters	0	4	255	259	5.6	3,796	1.0	1.20	.02
Nails	0	6	136	142	3.1	8,153	2.1	.66	.04
Other objects	0	6	221	227	4.9	5,355	1.4	1.05	.02
Struck by	2	33	1,110	1,145	24.9	65,932	16.9	5.31	.31
Hand tools	0	8	306	314	6.8	8,626	2.2	1.44	.04
Chisels	0	1	84	85	1.9	1,067	.3	.39	(3)
Wrenches	0	2	11	13	.3	1,001	.3	.06	(3)
Hammers	0	2	69	71	1.5	2,609	.7	.33	.01
Others	0	3	142	145	3.1	3,949	.9	.66	.03
Kick-backs from machines	0	14	162	176	3.8	20,704	5.4	.82	.10
Lumber falling from stacks, piles, etc	1	1	147	149	3.2	8,370	2.1	.69	.04
Lumber, other than falling	0	2	105	107	2.3	3,296	.8	.50	.02
Motor vehicles	0	0	12	12	.3	257	.1	.06	(3)
Vehicles, hand- or foot- operated	0	2	79	81	1.8	7,338	1.9	.38	.03
Other objects	1	6	299	306	6.7	17,341	4.4	1.42	.08
Caught in, on, or between	1	41	279	321	7.0	28,881	7.4	1.49	.13
Machinery	1	22	99	122	2.7	18,343	4.7	.56	.07
Gears	0	11	16	27	.6	5,468	1.4	.13	.03
Conveying equipment	0	1	50	51	1.1	1,131	.3	.24	.01
Other objects	0	7	114	121	2.6	3,939	1.0	.56	.02
Falls—one elevation to another	0	3	105	108	2.4	5,855	1.5	.50	.03
Falls—on same level	(1) 2	2	239	243	5.3	16,658	4.3	1.13	.08
Stumbling over objects	(1) 1	2	136	139	3.0	9,319	2.4	.65	.05
Other	1	0	103	104	2.3	7,339	1.9	.48	.03
Slips and overexertion	0	6	536	542	11.8	23,008	5.9	2.51	.11
Inhalation, absorption, ingestion	1	1	71	73	1.6	8,810	2.3	.34	.04
Contact with extreme temperature	1	1	47	49	1.1	7,309	1.9	.23	.03
Contact with electric current	0	0	5	5	.1	16	(4)	.02	(3)
All other types	2	5	287	294	6.4	17,969	4.6	1.36	.08
Unclassified because of insufficient data	0	3	76	79	------	4,212	------	.37	.02

See footnotes at end of table.

TABLE 2.—*Injury Rates, by Type of Accident, for 1,591 Lumber-Products Establishments, 1941*—Continued

Type of accident	Number of disabling injuries resulting in—			Total number of disabling injuries	Percent of classifiable injuries [2]	Total days lost	Percent of classifiable days lost [2]	Injury rates	
	Death and permanent total disability [1]	Permanent partial disability	Temporary total disability					Frequency	Severity
	Wooden containers (315 establishments, 31,500 employees, 60,859,000 employee-hours worked)								
All types	11	140	2,570	2,721	.....	211,138	.....	44.71	3.47
Striking against	1	95	820	916	34.1	69,601	33.1	15.05	1.16
Machines	1	91	419	511	19.0	62,744	29.8	8.39	1.04
Circular saws	0	36	142	178	6.6	24,956	11.9	2.93	.42
Swing saws	0	0	16	16	.6	255	.1	.26	[3]
Band saws	0	1	16	17	.6	523	.2	.28	.01
Saws, other	1	22	92	115	4.3	18,469	8.8	1.89	.30
Shapers	0	1	4	5	.2	364	.2	.08	.01
Lathes	0	5	11	16	.6	3,153	1.5	.26	.05
Jointers	0	3	11	14	.5	1,129	.5	.23	.02
Sanders	0	0	8	8	.3	105	[4]	.13	[3]
Machines, miscellaneous	0	23	119	142	5.3	13,790	6.6	2.33	.23
Lumber	0	1	70	71	2.6	1,179	.6	1.17	.02
Splinters	0	0	136	136	5.1	1,315	.6	2.23	.02
Nails	0	0	51	51	1.9	354	.2	.84	.01
Other objects	0	3	144	147	5.5	4,009	1.9	2.42	.07
Struck by	3	10	733	746	27.7	45,134	21.5	12.26	.74
Hand tools	1	0	109	110	4.1	7,570	3.6	1.81	.12
Chisels	1	0	11	12	.4	6,105	2.9	.20	.10
Wrenches	0	0	9	9	.3	189	.1	.15	[3]
Hammers	0	0	16	16	.6	423	.2	.26	.01
Others	0	0	73	73	2.8	853	.4	1.20	.01
Kick-backs from machines	0	2	114	116	4.3	5,867	2.8	1.91	.10
Lumber falling from stacks, piles, etc.	0	0	126	126	4.7	1,917	.9	2.07	.03
Lumber, other than falling	0	2	92	94	3.5	5,433	2.6	1.54	.09
Motor vehicles	0	0	17	17	.6	349	.2	.28	.01
Vehicles, hand- or foot-operated	0	2	49	51	1.9	3,372	1.6	.84	.06
Other objects	2	4	226	232	8.6	20,626	9.8	3.81	.33
Caught in, on, or between	1	29	249	279	10.4	31,840	15.2	4.58	.52
Machinery	1	19	126	146	5.5	20,901	10.0	2.40	.33
Gears	0	2	10	12	.4	2,871	1.4	.20	.05
Conveying equipment	0	5	33	38	1.4	4,637	2.2	.62	.08
Other objects	0	3	80	83	3.1	3,431	1.6	1.36	.06
Falls—one elevation to another	2	2	100	104	3.9	21,458	10.2	1.71	.35
Falls—on same level	1	2	130	133	4.9	16,440	7.8	2.19	.27
Stumbling over objects	0	2	91	93	3.4	9,800	4.6	1.53	.16
Other	1	0	39	40	1.5	6,640	3.2	.66	.11
Slips and overexertion	1	0	322	323	12.0	9,900	4.7	5.31	.16
Inhalation, absorption, ingestion	0	0	8	8	.3	145	.1	.13	[3]
Contact with extreme temperature	0	0	52	52	1.9	858	.4	.85	.01
Contact with electric current	1	0	4	5	.2	6,081	2.9	.08	.10
All other types	1	1	121	123	4.6	8,685	4.1	2.02	.14
Unclassified because of insufficient data	0	1	31	32	.....	996	.....	.53	.02

See footnotes at end of table.

TABLE 2.—*Injury Rates, by Type of Accident, for 1,591 Lumber-Products Establishments, 1941*—Continued

Type of accident	Number of disabling injuries resulting in—			Total number of disabling injuries	Percent of classifiable injuries [2]	Total days lost	Percent of classifiable days lost [2]	Injury rates	
	Death and permanent total disability [1]	Permanent partial disability	Temporary total disability					Frequency	Severity
Miscellaneous lumber products (222 establishments, 14,400 employees, 29,671,000 employee-hours worked)									
All types	3	63	864	930	.....	92,486	.....	31.34	3.12
Striking against	2	47	287	336	38.0	44,684	48.7	11.31	1.51
Machines	1	47	187	235	26.6	37,783	41.1	7.90	1.28
Circular saws	1	15	46	62	7.1	17,599	19.1	2.06	.60
Swing saws	0	1	7	8	.9	3,181	3.5	.27	.11
Band saws	0	2	3	5	.6	1,977	2.2	.17	.07
Saws, other	0	11	32	43	4.8	4,666	5.1	1.45	.16
Shapers	0	2	13	15	1.7	2,337	2.5	.51	.08
Lathes	0	5	19	24	2.7	2,967	3.2	.81	.10
Jointers	0	1	6	7	.8	376	.4	.24	.01
Sanders	0	0	14	14	1.6	113	.1	.47	[3]
Machines, miscellaneous	0	10	47	57	6.4	4,567	5.0	1.92	.15
Lumber	0	0	7	7	.8	61	.1	.24	[3]
Splinters	0	0	48	48	5.4	354	.4	1.62	.01
Nails	0	0	12	12	1.4	97	.1	.40	[3]
Other objects	1	0	33	34	3.8	6,389	7.0	1.15	.22
Struck by	1	9	209	219	24.7	27,210	29.6	7.38	.92
Hand tools	0	1	35	36	4.1	714	.8	1.21	.02
Chisels	0	0	2	2	.2	21	[4]	.07	[3]
Wrenches	0	0	5	5	.6	32	[4]	.17	[3]
Hammers	0	1	5	6	.7	342	.5	.20	.01
Others	0	0	23	23	2.6	319	.3	.77	.01
Kick-backs from machines	0	3	30	33	3.7	5,192	5.7	1.11	.17
Lumber falling from stacks, piles, etc	1	2	45	48	5.4	11,592	12.6	1.62	.41
Lumber, other than falling	0	1	33	34	3.8	2,456	2.7	1.15	.08
Motor vehicles	0	0	4	4	.5	16	[4]	.13	[3]
Vehicles, hand- or foot-operated	0	1	13	14	1.6	2,520	2.7	.47	.08
Other objects	0	1	49	50	5.6	4,720	5.1	1.69	.16
Caught in, on, or between	0	4	77	81	9.1	7,425	8.1	2.73	.25
Machinery	0	3	34	37	4.1	6,230	6.8	1.25	.21
Gears	0	0	6	6	.7	66	.1	.20	[3]
Conveying equipment	0	1	7	8	.9	666	.7	.27	.02
Other objects	0	0	30	30	3.4	463	.5	1.01	.02
Falls—one elevation to another	0	2	25	27	3.0	8,572	9.3	.91	.29
Falls—on same level	0	0	42	42	4.7	590	.6	1.42	.02
Stumbling over objects	0	0	28	28	3.1	464	.5	.95	.02
Other	0	0	14	14	1.6	126	.1	.47	[3]
Slips and overexertion	0	0	117	117	13.2	2,398	2.6	3.94	.08
Inhalation, absorption, ingestion	0	0	13	13	1.5	119	.1	.44	[3]
Contact with extreme temperature	0	0	10	10	1.1	73	.1	.34	[3]
Contact with electric current	0	0	2	2	.2	21	[4]	.07	[3]
All other types	0	1	39	40	4.5	793	.9	1.35	.03
Unclassified because of insufficient data	0	0	43	43	.....	601	.....	1.45	.02

[1] Figures in parentheses show the number of cases of permanent-total disability included.
[2] Excludes cases unclassified because of insufficient data.
[3] Less than 0.005.
[4] Less than 0.05.

Injury Experience by Size of Establishment

FURNITURE MANUFACTURING

Confirming the findings of the previous year's study, the 1941 survey again indicated that industrial injuries, on the average, occurred less frequently in the smaller furniture-manufacturing plants than in the larger establishments. When the reporting establishments in this industry classification were grouped according to the number of their employees, the average frequency rates for the various size groups varied directly with the volume of employment from a low rate of 14.3 for plants having fewer than 24 employees to a high rate of 24.3 for the plants with 100 to 199 employees. The group of plants having 200 to 399 employees and those having 400 or more employees, averaging 22.9 and 21.8 disabling injuries per million man-hours, respectively, had rates somewhat below the 100 to 199 employee group, but not so low as any of the other size-group averages. Size alone cannot be accepted as the criterion of safety, however. Some plants in every size group had frequency rates of over 80 and some in every size group operated throughout the year without a single disabling injury. The highest rate recorded for any individual furniture plant which employed 3 or more workers was 203.5 for an establishment in the group with 50–99 employees.

WOODEN-CONTAINER MANUFACTURING

Average frequency rates for the various size groups in the wooden-container industry also varied directly with the plant size, ranging from a low average of 28.6 for plants with fewer than 25 employees to a high average of 58.7 for those having 400 or more employees. Here again the individual establishments included in each of the size groups exhibited an extremely wide range of frequency rates. None of the plants which had as many as 400 employees was able to report an accident-free year, but there were some establishments with no disabling injuries in each of the other size groups. At the other extreme, each of the size groups included some plants which had frequency rates of over 80. The highest rate for any establishment in this industry was 225, for a plant in the 50–99 employees group.

MISCELLANEOUS LUMBER PRODUCTS

In the miscellaneous-lumber-products industry, a similar direct relationship between plant size and injury frequency prevailed, except for one size group. The four plants which reported over 400 employees each had by far the lowest group-average frequency rate. One of these establishments had a rate of less than 10, two had rates of less than 20, and one had a rate between 21 and 30. Their average frequency rate of 15.4 was less than half as high as the average for the entire industry group.

Among the other size groups, the average frequency rates varied in fairly close conformity with the variations in plant size, ranging from 25.8 for the group of plants having fewer than 25 employees to a rate of 42.6 for those having between 200 and 300 employees. Each of the size groups, except that with 400 employees and over, included some plants which reported no disabling injuries, and each group

composed of plants having fewer than 200 employees included some with rates of over 80. The highest rate for any plant in this industry group was 285.6, for an establishment in the 1–24 employees group.

TABLE 3.—*Distribution of Injury Frequency Rates in 1,591 Lumber-Products Establishments, 1941, by Size of Establishment*

Industry and classified number of employees	Total number of establishments	Establishments having frequency rates of—										Total number of employees	Total employee hours worked (thousands)	Total number of disabling injuries	Injury frequency rate
		Zero	1 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	81 or more				
Furniture (except metal)	1,054	460	85	174	106	79	49	29	26	12	34	107,146	[1] 215,637	4,673	21.67
1 to 24	338	261	0	6	18	10	12	6	6	6	13	4,312	8,303	119	14.33
25 to 49	213	112	3	33	16	18	10	8	4	2	7	7,541	14,862	252	16.96
50 to 99	185	57	27	40	20	18	7	7	2	0	7	13,100	26,597	503	18.91
100 to 199	182	23	24	52	28	20	12	7	11	1	4	25,907	52,374	1,273	24.31
200 to 399	90	4	19	27	16	9	8	1	3	1	2	23,840	49,639	1,135	22.87
400 or more	46	3	12	16	8	4	0	0	0	2	1	32,446	63,862	1,391	21.78
Wooden containers	315	85	15	33	40	34	20	22	8	17	41	31,530	[1] 60,859	2,721	44.71
1 to 24	54	31	0	1	1	3	3	5	1	2	7	747	1,294	37	28.59
25 to 49	83	32	1	11	5	10	4	3	4	5	8	2,844	5,531	179	32.37
50 to 99	71	16	5	8	13	9	4	3	1	4	8	4,930	9,551	356	37.27
100 to 199	68	5	4	9	16	6	6	6	1	3	12	9,661	18,928	862	45.54
200 to 399	30	1	4	3	4	5	2	4	0	2	5	8,203	16,069	730	45.43
400 or more	9	0	1	1	1	1	1	1	1	1	1	5,145	9,486	557	58.72
Miscellaneous lumber products	222	83	10	20	25	21	18	8	9	7	21	14,441	[1] 29,671	930	31.34
1 to 24	90	60	0	1	4	6	3	3	1	3	9	1,077	2,129	55	25.83
25 to 49	55	13	0	10	8	6	5	1	2	3	7	2,003	3,880	132	34.02
50 to 99	38	6	7	5	5	6	3	1	2	1	2	2,690	5,630	175	31.09
100 to 199	27	3	2	2	7	1	5	2	2	0	3	3,797	7,967	291	36.52
200 to 399	8	1	0	0	0	2	2	1	2	0	0	2,154	4,480	191	42.63
400 or more	4	0	1	2	1	0	0	0	0	0	0	2,720	5,584	86	15.40

[1] Totals based on unrounded data.

Types of Permanent Partial Injuries

FURNITURE MANUFACTURING

More than 87 percent of the permanent partial injuries reported by furniture-manufacturing establishments involved the loss of one or more fingers. Cases involving the loss of a hand or an arm amounted to about 4 percent of the total. Eye cases similarly numbered about 4 percent of the permanent partial disabilities. Permanent impairments to feet, legs, and other parts of the body were relatively uncommon.

Nearly 90 percent of the lost-finger cases involved contact with machines. Highly indicative of the need for point-of-operation guards was the fact that the great majority of these cases involved contact with the actual cutting parts of the machines. Unguarded gears or other revolving machine parts, and kick-backs from saws each caused a number of finger amputations. Several fingers were crushed into uselessness between heavy materials, and a number of wounds produced by splinters, nails, and hand tools, many of which were apparently of minor nature but developed infection, led to the ultimate removal of a finger or thumb.

More than half of the more serious cases resulting in the loss of a hand or an arm arose from direct contact with the cutting parts of power machines. Kick-backs also produced several permanent

impairments of this nature. Cases which resulted in the loss of an eye were generally produced through employees' being struck by objects such as hand tools and woodstock which had been kicked back by saws.

WOODEN-CONTAINER MANUFACTURING

Conforming to the typical pattern of injuries in woodworking, nearly 85 percent of the permanent partial disabilities reported by the wooden-container manufacturing establishments were cases resulting in the loss of one or more fingers. Over 90 percent of these cases arose from contact with machines, again largely contacts with the cutting parts at the point of operation.

As in the furniture industry, cases involving the loss of a hand or arm amounted to about 4 percent of all the permanent partial disabilities. Contrary to the experience of the furniture industry, however, cutting machines were involved in relatively few of these cases. Foot and leg cases accounted for about 5 percent of the permanent impairments in this industry. Nearly all of these injuries resulted from accidents of the "struck by" type and did not involve contact with machines.

MISCELLANEOUS LUMBER PRODUCTS

The proportion of lost-finger cases among the permanent partial impairments of the plants making miscellaneous lumber products (about 80 percent) was somewhat lower than in the furniture and wooden-container industries, and the proportionate number of foot and leg impairments was correspondingly higher (11 percent). Only a few permanent impairments to other parts of the body were reported. Cutting machines, principally power saws, produced a large majority of all the permanent partial impairments.

TABLE 4.—*Distribution of Reported Permanent Partial Disability Injuries in Lumber Products Establishments, 1941, by Part of Body Affected and Type of Accident*

Industry and accident type	Total number of cases	Number of permanent partial disability cases involving loss or loss of use of—							
		Arm or hand	Leg or foot	1 thumb	1 finger	2 or more fingers	Thumb and 1 or more fingers	1 eye	Other
Furniture	366	14	6	44	182	78	15	13	14
Striking against	271	8	2	38	138	65	15	2	3
Machines	255	8	1	35	129	63	15	1	3
Saws	94	2	0	16	46	23	5	0	2
Shapers, lathes, jointers, or sanders	117	4	0	11	57	35	9	1	0
Miscellaneous	44	2	1	8	26	5	1	0	1
Splinters	4	0	0	1	3	0	0	0	0
Nails	6	0	1	1	3	0	0	1	0
Other objects	6	0	0	1	3	2	0	0	0
Struck by	33	3	2	1	10	3	0	9	5
Hand tools	8	0	0	1	5	0	0	2	0
Kick-backs from machines	14	3	0	0	4	3	0	2	2
Other objects	11	0	2	0	1	0	0	5	3
Caught in, on, or between	41	0	0	3	29	9	0	0	0
Machinery	22	0	0	1	15	6	0	0	0
Gears	11	0	0	2	6	3	0	0	0
Other objects	8	0	0	0	8	0	0	0	0
Falls	5	0	1	0	1	1	0	0	2
Slips and overexertion	6	3	0	0	0	0	0	0	3
All other types	7	0	0	1	3	0	0	2	1
Unclassified	3	0	1	1	1	0	0	0	0

TABLE 4.—*Distribution of Reported Permanent Partial Disability Injuries in Lumber-Products Establishments, 1941, by Part of Body Affected and Type of Accident*—Con.

Industry and accident type	Total number of cases	Number of permanent partial disability cases involving loss or loss of use of—							
		Arm or hand	Leg or foot	1 thumb	1 finger	2 or more fingers	Thumb and 1 or more fingers	1 eye	Other
Wooden containers	140	6	7	12	76	28	2	2	7
Striking against	95	1	0	10	58	19	2	1	4
Machines	91	1	0	10	56	18	2	1	3
Saws	59	1	0	9	34	13	2	0	0
Shapers, lathes, jointers, or sanders	9	0	0	0	8	0	0	1	0
Miscellaneous	23	0	0	1	14	5	0	0	3
Other objects	4	0	0	0	2	1	0	0	1
Struck by	10	0	5	1	1	1	0	1	1
Caught in, on, or between	29	2	1	1	17	7	0	0	1
Machinery	19	1	0	1	12	5	0	0	0
Conveying equipment	5	1	0	0	3	0	0	0	1
Other objects	5	0	1	0	2	2	0	0	0
Falls	4	3	1	0	0	0	0	0	0
All other types	1	0	0	0	0	1	0	0	0
Unclassified	1	0	0	0	0	0	0	0	1
Miscellaneous lumber products	63	2	7	4	28	17	1	1	3
Striking against	47	1	0	4	25	15	1	0	1
Machines	47	1	0	4	25	15	1	0	1
Saws	29	1	0	3	13	10	1	0	1
Shapers, lathes, jointers, or sanders	8	0	0	0	5	3	0	0	0
Miscellaneous	10	0	0	1	7	2	0	0	0
Struck by	9	0	5	0	2	0	0	1	1
Kick-backs from machines	3	0	1	0	1	0	0	0	1
Other objects	6	0	4	0	1	0	0	1	0
Caught in, on, or between	4	1	0	0	0	2	0	0	1
Machinery	3	1	0	0	0	2	0	0	0
Conveying equipment	1	0	0	0	0	0	0	0	1
All other types	3	0	2	0	1	0	0	0	0

Specific Accidents and Prevention Methods [5]

The following brief accident descriptions have been prepared from narrative reports regarding particular injury occurrences, which were furnished by the establishments cooperating in this survey. In selecting the examples to be included in the list an effort was made to avoid the very unusual kind of accidents and to choose cases that were typical and of fairly common occurrence. As is apparent from the comments appended to each of the accident descriptions, many of the preventive measures which might avoid the repetition of such accidents are entirely nontechnical and require only a willingness to place safety first to make their application successful. The provision of proper guards for power cutting machines naturally ranks first among the suggested prevention methods.

Furniture Manufacturing

1. Operator was ripping a piece of board. He reached back of the saw to draw the piece through. The piece kicked back, drawing his hand into the saw and amputating his thumb and finger.

Kick-backs are wholly preventable by proper saw guard, splitter, and "anti-kick-back dogs."

[5] In the analysis of these accidents, selected as typical of those reported, the authors had the assistance of R. P. Blake, Senior Safety Engineer of the Division of Labor Standards, U. S. Department of Labor. The analysis was made from cards to which the descriptions of accidents had been transcribed so as not to reveal the identity of reporting establishments.

2. Employee had infection in his finger as a result of a sliver. Result, amputation.

All puncture wounds should be given immediate first-aid attention.

3. Man was cutting rosettes on electric router. As he was pushing board through straight edges, the board, which was pushing hard, suddenly released, letting man's hand under guard and into contact with cutter. Result, loss of thumb, half of middle finger, and lacerated index finger.

Evidently straight edges were not correctly placed. Board should slide through easily without play. When short stock is being run, a push stick or jig should be used.

4. Man was pushing a loaded hand truck. His foot slipped on sawdust. In trying to regain his balance he shoved the truck and let go. The truck ran out of the aisle and struck another workman, knocking him down. The latter lost 10 days from back strain.

Loose sawdust is very dangerous. It should not be allowed to accumulate on aisle floors or around machines.

5. A heavy motor was being lowered into place with a hand hoist. One man attempted to guide it into position. It came down faster than he had anticipated and rested on his foot, fracturing 3 toes.

This type of operation must be carefully planned and the men must be carefully instructed as to procedure. Guiding a suspended object should be by a line or guide stick, never by hand. Safety shoes should be worn.

6. Shipping helper was loading material onto truck. While carrying a box, he stepped into a 6-inch space between the end gate and platform, fracturing leg.

A suitable gangplank should always be used if the end gate does not reach the platform.

7. Man was cutting angles on blocks with variety saw. A block slipped, throwing finger into saw. The finger had to be amputated. Several months later the same employee injured another one of his fingers in the same manner. This finger was also amputated.

This type of work should be done only with gigs and guides to keep the hands well away from the saw and to give good control.

8. Man was operating tow machine. His hand caught in gears, pulling arm into machine. Death resulted from loss of blood.

All gears should be completely enclosed.

9. Attendant of bale-breaking machine saw gears stuffed with felt. He removed guard to clean the gears without shutting off power. Right thumb was amputated.

All gears should be enclosed in grease-tight casings. Men should not be permitted to clean or adjust equipment while it is in motion.

10. Employee was operating shaper. The board jerked and dragged his left hand into shaper, cutting off all his fingers except the thumb.

The provision of proper guards and guides will eliminate this type of accident.

11. Man was repairing swing-saw table and touched saw, which had been shut off but was still rolling. Second finger amputated.

Properly guarded saw prevents contact by hand unless the guard is lifted up. Employees should be trained to wait until machine is stopped before adjusting.

12. Man was cutting a piece of wood on bench variety saw when he stepped on a piece of scrap lumber lying on the floor. This caused him to slip. As his body came forward his left hand slid under the saw as his right hand released the guard and pushed the saw down on the left hand. Traumatic amputation, distal half of middle, ring, and little fingers.

This emphasizes the importance of good housekeeping. Scrap lumber should not be permitted to be on the floor.

13. Man working in warehouse stepped on a tack. Infection developed and leg had to be amputated.

All puncture wounds should be given immediate and adequate first-aid treatment.

14. Employee, a skilled operator on power-feeding machinery, had occasion to rip some 1¾ inch x 30 inch dressed lumber for table legs, on a plain rip-saw table. He failed to hold a piece firmly, so that it rose and shattered in the cut. In his confusion he let go of the piece (which remained in position nearly clear of the saw), turned his hand over and brought the back of it down on the saw, cutting off parts of thumb and three fingers.

Saws should be equipped with proper guards, spreaders, and guides.

Wooden Containers

1. Man was operating shaper. His hand slipped and struck knives. A finger was amputated.

Shapers can be guarded to eliminate most accidents of this type. Guards coupled with the use of jigs to hold the work should prevent all such injuries.

2. Girl was operating small donkey press trimming rubber tubing. She reached too far for stray piece and accidentally tripped press with foot. Press knife fell and amputated a finger.

Inverted stirrup guards should be placed over all treadles to prevent their being accidentally depressed. The press should have been guarded at the point of operation.

3. Man was clipping cover stock to size. He failed to withdraw hand before machine closed and lost three fingers.

Machine should be so guarded that it will not close unless hand is withdrawn, or the controls so arranged that hands must be out of danger zone to reach them.

4. Operator of cut-back machine stepped on the foot pedal, which threw the clutch in. The knife came down, amputating his hand. He does not know just what he did or how it happened.

Foot pedals should be guarded so that they cannot be unintentionally depressed. Apparently this machine also lacked a guard at the point of operation.

5. A stitching-machine operator turned his machine with a wrench and then started the machine without removing the wrench. The wrench swung over and hit the operator in the back, injuring vertebrae.

The necessity of turning over machines by hand produces many such accidents as this. Prevention lies in use of a self-releasing tool (or equivalent safe means), careful training, and careful supervision.

6. Sawdust which had collected in and around an electric motor caught fire, probably from the motor. An excited employee, who poured on water from a metal watering can used to fill truck radiators, received a severe electrical shock when the water struck the motor.

Bad housekeeping is a major source of fires. Special extinguishing equipment for use on electrical equipment should be provided and employees should be trained in its use.

7. Man was ripping wide boards. He attempted to adjust splitter while saw was in operation. Left hand came into contact with saw, severing little finger.

A properly designed splitter requires no adjustment for any ripping operation. Supervisors must insist that no adjustments be made with machines in operation.

8. Operator, oiling feed rolls with machine running, put hand under guard against gang saws, cutting off three fingers between first and second joints.

Oiling should never be permitted with machine in operation unless guarding is so complete as practically to eliminate hazard. This guard was apparently inadequate.

9. Operator of printing press was setting plate while standing on platform next to glass window. He lost his balance and fell through window, severely cutting his arm between wrist and elbow. Leaders were severed which partially disabled him.

Window openings where similar possibilities exist should always be protected. If sills are lower than about 36 inches, bars should be provided.

10. While operator was working on ripsaw, board hit nick in table and stuck. His hand slipped from board and came in contact with ripsaw blade. Lost one finger.

A proper self-adjusting hood guard should be provided for all circular saws. Evidently, the table was in bad condition. Careful maintenance, particularly about such equipment as this, is vital to safety.

11. Man was putting on a planer belt, using a long stick. The stick caught on the belt or pulley and struck him in the face. Lost 2 days' work.

Belts should be replaced only with the power off. Means should be provided to turn the shafting by hand for this purpose. If this is not done, the belt should be started on the pulley with the power off and then carried on by "inching" the control. Such work should be done only by selected persons carefully trained in the proper procedure.

12. Man was ripping lumber, but was not using pusher stick. Kick-back caused his hand to come into contact with saw, severing thumb, first joint.

Proper guards should be provided. Saws in proper condition and provided with proper splitters and "anti-kick-back dogs" do not kick back. If saw blade is properly guarded, contact with saw is extremely unlikely unless the operator holds the guard out of place.

13. Clipper operator was cleaning out trash from under clipper when board knocked his hand under blade, severing 4 fingers.

Cleaning should never be done with machinery running. Supervisors must be insistent on this point. Provision must be made for cleaning on "down time."

14. Operator of circular saw opened sawdust pit and reached in to remove a holder. He touched the moving saw and lost 3 fingers.

Under part of saws should be guarded. Workmen should be not permitted to clean or adjust machines while they are in motion.

Miscellaneous Lumber Products

1. Operator on trim saw was pushing a piece of lumber to the saw when his finger caught between the lumber and belt. Finger was permanently disabled.

All belts should be completed enclosed.

2. Shirt sleeve caught and drew operator's arm into gears of veneering machine. Two fingers were amputated.

All gears should be completely enclosed regardless of position.

3. Chop-saw operator glanced away from his machine as he reached to throw switch to shut off power. Struck first finger of left hand into teeth of saw. Finger was amputated.

Control switch was too close to saw. Guard was evidently lacking or inadequate.

4. Operator of a hand electric drill was electrocuted when a high voltage line was blown across the low-voltage circuit during a windstorm.

Adequate protection against such imposed high-voltage current should be included in the plant wiring system.

5. General maintenance man was oiling shaft boxes while shaft was in motion (this contrary to general instructions). Was on platform about 6 feet from floor. Coat sleeve caught in line shaft key, causing employee to fall to floor. Several ribs fractured.

Failure to obey such instructions usually indicates poor supervisory control and inadequate safety training. There should be no projecting keys in line shafting.

6. Operator of lathe stepped on a handle, throwing him off balance, causing his hand to strike revolving cutters. Index finger was amputated.

Good housekeeping should include providing a place for everything, and supervisors should see that everything is kept in its place. Loose material should not be allowed to be on the floor.

7. Employee was pushing a car of pine on tracks. In some way his left foot became caught under the wheel of the transfer car.

Such cars should be equipped with wheel guards.

8. Man, sweeping floor around saw, reached under saw to remove box of scrap; hand struck bottom of saw, amputating 2 joints of 2 fingers. Guard of saw had been removed.

An adequate system of inspection should be maintained to see that all guards are kept in place.

9. Operator of slicer knife had sharpened the knife and was replacing the hood. His hand slipped and struck the revolving knife. One finger lacerated so badly it was later amputated.

Machines should always be shut down during adjustments. This rule should be strictly enforced by the supervisor.

10. Operator of cut-off saw lost 2 fingers when the piece being cut turned and drew his hand into the saw.

The saw should have had an adequate guard with a self-adjusting section to ride on top of the work. Also the piece evidently was not held against the guide.

11. A truck carrying a heavy load of lumber rolled over when the load shifted as the truck rounded a curve. The driver was thrown against the side of the cab and suffered a concussion of the brain.

This is a common type of accident. Prevention lies in careful loading, secure tying of load, and care in driving. Supervisors should see that these rules are obeyed.

12. Laborer bruised finger but did not report accident for some days. In meantime he punctured the wound with a pocket knife, causing serious infection.

Careful attention must be paid to the reporting, treating, and follow-up of all minor injuries if such infections are to be prevented.

13. The employee reached his hand into the screw conveyor while conveyor was running. His arm was crushed and had to be amputated above the elbow.

Screw conveyors should be completely encased. Necessary openings should be protected by fixed gratings that will not pass the hand. Feed hopper should be of a depth beyond arm's length.

Labor Laws

STATE LABOR LEGISLATION IN 1942 [1]

DURING the year 1942 eight State legislatures met in regular and six in special session. Comparatively little new legislation, raising labor standards, was adopted, but legislation dealing with the national emergency was passed in practically all of these States. Louisiana, New York, and Virginia empowered the labor commissioners to issue war emergency dispensations; New York and Louisiana authorized exemptions from any labor law interfering with operation or employment in war industries, and Virginia from any hours laws. In all three States safeguarding procedure was prescribed for the issuance of permits. In Louisiana, however, this law was followed by two other enactments, one law permitting the Governor to relax specified types of State laws on request by the Federal authorities, and the other changing the women's hours law by extending the daily hours limit from 8 to 10 for the duration (with time and a half after 8) and by permanently exempting women in certain employments from the act. Maine, Massachusetts, and Rhode Island conferred broad emergency powers on the Governors. In Massachusetts the Governor may suspend any law affecting employment when he deems it necessary to prevent obstruction of war work. In Maine and Rhode Island the powers are not precisely defined. In addition, a few States in 1942 provided for the suspension of specific laws such as those relating to child labor, Sunday work, meal periods, etc.

Related to the war emergency situation also are new enactments in New York empowering the Industrial Commissioner to enforce certain provisions of the Civil Rights law prohibiting discriminatory employment policies by employers holding war production contracts. Private employment agencies, unions, and other organizations are included in the prohibition against discrimination or incitement to discriminate. The enforcement methods open to the Industrial Commissioner include investigation, subpena, and hearing, requiring the submission of pertinent employment data at regular intervals, issuance of cease and desist orders, and finally, criminal prosecution.

In the field of general improvement of labor standards are to be noted enactments in Louisiana and Puerto Rico strengthening the child labor laws, setting a basic minimum age for employment, requiring employment certificates up to age 18, and lowering the number of hours that minors are permitted to work. New York forbade the giving out of industrial home work through contractors, and defined the status of home worker as that of an employee so that in

[1] Prepared by Division of Labor Standards of the U. S. Department of Labor. For further details on legislation see its Bulletin No. 51: Digest of State and Federal Labor Legislation Enacted July, 1941 to August 1, 1942.

the future no claim can be made that such a worker is an independent contractor.

In the workmen's compensation and safety field the most comprehensive amendments were enacted in Virginia and Rhode Island. Virginia extended the coverage of its workmen's compensation act to employers of 7 or more, instead of 11 or more as formerly, and raised the benefit level. Rhode Island, in addition to strengthening administrative provisions, increased the level of benefits, added coverage of silicosis and asbestosis, and provided for more liberal medical care. That State likewise took the lead by enacting the first State health-insurance law, creating a fund from which to pay sickness benefits by lowering the employees' rate of contribution to the unemployment compensation fund and applying the difference to the new purpose.

Numerous bills relating to industrial relations were introduced, but the only law to obtain approval was one in Mississippi resembling the so-called 1941 "antiviolence" statute of Texas. It makes unlawful not only the use of force, violence, or threats thereof, to prevent any person from engaging in a lawful vocation, but also the conspiring together of two or more persons for such purpose, and it treats as a felony the assembling of persons anywhere in the State for the purpose of furthering such a conspiracy. The Texas statute confined itself to barring assemblages at or near the plant where a labor dispute was in progress.

There were no major Federal enactments in the field of labor law up to October 1, 1942. Since that time Congress has passed a law to aid in stabilizing the cost of living. This measure empowered the President to stabilize prices, wages and salaries. For a discussion of the anti-inflationary program, see page 917 of this issue.

LEGISLATIVE SESSIONS IN 1943

THE year 1943 will be a major legislative year, with 44 States, Alaska, Hawaii, and Puerto Rico convening in regular session. All but 3 meet in January; the Florida Legislature meets early in April; the Alabama and Georgia Legislatures convene in May and July respectively, but preliminary sessions will be held in January for organization purposes only. Only Kentucky, Louisiana, Mississippi, and Virginia will not convene.

Most of the States and Alaska and Hawaii hold biennial sessions and meet in odd-numbered years. Three States (New Jersey, New York, and Rhode Island) meet annually. Alabama formerly had quadrennial sessions and South Carolina annual sessions, but in both these States sessions will be held biennially beginning in 1943.

The length of the sessions is limited in 18 States. The usual time limit is 60 days, but in a few States it is 90 days or more. The Wyoming Legislature must adjourn after 40 days. The majority of the States have no limit on the length of time the legislatures may stay in session; some States discourage long sessions by stopping the pay of the legislators after a certain number of days.

The 78th Congress of the United States will convene on January 3, 1943.

Cooperation

CONSUMERS' COOPERATION IN THE UNITED STATES IN 1941

Summary

COOPERATIVE development in the United States has generally followed the economic curve, but in reverse order, expanding with depression times and usually receding somewhat as prosperity returned and the necessity for small savings lessened. The latest period of cooperative expansion, which began with the onset of the depression in 1929, has, however, been an exception to the general rule, for it has continued unbroken its upward sweep. It is possible that war conditions, restricting civilian supplies and consumption, will force out of operation a certain proportion of associations, notably those in the petroleum-products business. Such restrictions had not gone into effect at the end of 1941, the year covered by this report. For a large percentage of the associations that year was the best in their history.

The nearly 4,500 primary distributive and service associations had an estimated paid-up membership of over 1,427,000, in addition to partly paid members numbering (in reporting associations) nearly 146,000. Thus, over 1½ million persons were full-fledged members or were on their way to full membership in these consumers' cooperatives at the end of the year.

With a retail distributive business of over $345,000,000 and a service business of nearly $11,000,000, these local consumers' cooperatives accounted for a total of over $356,000,000 in consumer goods and services during the year. In addition, the 54 distributive and service federations had a total business aggregating almost $105,000,000; of this, $100,760,000 was wholesale distributive, $2,243,000 was service, and the remainder represented retail and other business.

For identical associations reporting for both 1940 and 1941, the latter year showed increases in membership of the local associations of over 7 percent and in sales of about 23 percent. For the regional wholesales the increases were 9 and 23 percent, respectively.

The wholesales and the central productive associations owned by them produced goods, for their own use or for sale to member associations, amounting to over $14,000,000.

In addition to these purely consumer cooperatives, there are many farmers' marketing associations which do purchasing of consumer goods for their members. The data available are insufficient to permit estimates as to the total amount of purchasing of consumer goods by farmers' marketing associations in 1941; the 524 associa-

tions of this kind which furnished reports for the year had a combined business of $119,122,000.

No general estimates were made as to operating results, resources, etc. The 1,600 local distributive and service associations making returns on these points reported combined net earnings, for the year, aggregating $11,533,148, after deducting losses of $216,916 by 116 associations. If to this sum be added the net earnings by the wholesale associations, amounting to $4,750,497, the consumers' cooperative movement saved for its members over 16¼ million dollars in this one year.

The distributive and service associations are generally regarded as forming the consumers' cooperative movement proper. Telephone, electricity, and insurance associations, and credit unions, though also consumers' cooperatives, both here and abroad form distinct and separate parts of the movement. Inclusion of their totals with the data for the distributive and service associations brings the total number of associations in the United States at the end of 1941 to nearly 23,000, the consumers' cooperative membership to almost 16½ million persons, and the total local and retail consumers' cooperative business to about a billion dollars in addition to a wholesale business of nearly $105,000,000. Net earnings are available (among the special types of associations) only for the credit unions. If these are added, the net earnings of local and federated associations for 1941 total nearly 30½ million dollars.

About 1,400 retail and service cooperatives and the central commercial associations together reported a labor force of nearly 12,000 full-time persons, to whom they paid in wages the sum of $17,879,000. A considerable number of part-time workers was also reported, especially by the students' cooperative rooming and dining associations. Average yearly wages for full-time employees varied quite widely, ranging from $635 in the central productive associations to $2,329 in the regional and State-wide educational federations.

The data here given are based upon a general survey of cooperatives made by the Bureau of Labor Statistics, covering all the distributive and service associations, the pre-REA electricity associations, the federated commercial and noncommercial organizations, and credit unions. Data for the REA electricity cooperatives were supplied by the Rural Electrification Administration. The telephone associations were not circularized; estimates for these are based upon the Bureau's 1936 study. The estimates for the insurance associations are based upon the trend of a reporting sample, plus data from Department of Agricultural reports.

The various types of associations covered in this report are not equally cooperative, in the accepted Rochdale sense. The cooperative distributive associations follow the principles laid down by the Rochdale Pioneers: Membership is open to anyone who can make use of the association's services. The members themselves provide the capital necessary, but no one has more than one vote regardless of the size of his investment. The members decide what type of business they shall carry on and they control all the policies. Whatever activity they undertake is carried on in their interest as consumers, to supply themselves with goods and services. The characteristic which above all distinguishes the consumers' cooperative business from other business is that the net amount saved through the operation of

the business (i. e., what would in private operation be termed the "net profit") is returned to the members, not in proportion to the amount of capital stock they hold, but in proportion to their patronage of the business. Thus, in a store society the member who has spent $500 at the store in the course of the year would receive in patronage refunds five times as much as the member whose purchases totaled only $100.

The consumers' cooperative movement, wherever found, is still grounded upon these principles. The immediate objective is economic—to make the pennies go farther, to eliminate the extra cost entailed by extravagant advertising and by high-pressure salesmanship, to handle only commodities of known good quality, and to fill an increasing number of human wants on a nonprofit basis. Like the original Pioneers' society, the present-day movement also has a far-reaching social philosophy. Its final aim is to supply every need of life, social and economic, without profit and by united effort.

Conscious practice of cooperative principles is not so common among some of the special service associations, as for instance, the telephone and insurance associations. Some of these are organized as cooperatives and run as such, but by far the larger number are cooperative only because of their conformity to the principles of mutuality, not because of their acceptance of the Rochdale philosophy. The laws under which credit unions are formed provide for many of the cooperative principles (membership control, one vote per member, no proxy voting, etc.), but they also (except in Ohio) provide for division of earnings on the basis not of patronage but of the members' investment. Nevertheless, some credit unions, notably those connected with Rochdale cooperatives, practice the patronage-refund principle and make a refund on interest paid by borrowers at the same rate as is paid on shares. With the continuance of the affiliation between the central organizations of these two sections of the cooperative movement—The Cooperative League and the Credit Union National Association—this tendency may accelerate.[1]

Geographical Distribution of Cooperatives, by Type

Geographically, there is a wide diversity in extent of cooperative development, but the records of the Bureau of Labor Statistics indicate that there are store associations in every State in the Union except Nevada. Thanks largely to the educational work of the Southeastern Cooperative League, the southern and southeastern States now all have one or more stores or buying clubs for consumer goods. In some States, however, the development is still meager. Thus, in Arizona there are only 8 associations, and of these 6 belong to Indians.

The store associations are still found in greatest numbers in the Middle West, with a smaller but growing development in New England, the Middle Atlantic States, and the Pacific Coast States. States leading as regards number of store associations are in order, Minnesota, Wisconsin, and Michigan. The greater part of the associations handling petroleum products are also in the Middle West, Mountain States, and Texas; there are still very few in the other sec-

[1] The Credit Union National Association was admitted to the Cooperative League as a fraternal member in 1939; in the fall of 1942 the central supply association of the credit-union movement, Cuna Supply Cooperative, became a full member of the League.

tions of the country. States with the largest number of these associations are Minnesota, Nebraska, North Dakota, and Wisconsin. A great many of the associations whose major business is the conduct of a store business also handle petroleum products.

Buying clubs are difficult to discover, as they generally are informal, unincorporated groups with no established business premises. The greater part of those of which the Bureau has records are in New York, Pennsylvania, Ohio, and Massachusetts.

Cold-storage lockers, in which to store meats, vegetables, etc., until consumed by members' families, are growing in popularity. Of the 45 associations known to the Bureau, whose sole business is the operation of cold-storage plants, over half (24) are in Illinois. In addition, some store associations have cold-storage departments. In the past few years, also, famers' cooperative creameries (not included in this report because they are producer, not consumer, organizations) have in growing numbers been installing locker systems.

Until a few years ago, practically all of the cooperative housing in the United States consisted of apartment buildings in New York.[2] Beginning in 1939, construction of single detached dwellings was undertaken by a few associations elsewhere—Illinois, Michigan, Minnesota, and Wisconsin. The total of such associations, however, is still small, and war conditions will probably prevent much further construction for the time being, although several associations have been formed with a view to carrying on educational work and accumulating funds for post-war building.

Each study made by the Bureau reveals fewer associations whose sole business is the manufacture and sale of bakery products. Only 5 of these remained at the end of 1941—all in the States of Massachusetts, New York, and New Jersey. A few store associations have bakeries, run as a department of the merchandising business. Several of the store associations also have a dairy department, but there are only three consumers' cooperative associations known to the Bureau whose only business is the processing and distribution of dairy products.

One or two burial associations are being formed each year, but this type of organization is still found mainly in the States of Iowa, Minnesota, South Dakota, and Wisconsin.

An interesting development is that of associations whose purpose is the operation of a water system. The majority of the organizations of this type have been started to supply water in suburban sections of metropolitan districts to which the local city-water system does not reach. Most of these are in Oregon, Washington, and Wisconsin.

The opposition of the medical profession and difficulties of financing the necessary equipment have tended to discourage the formation of associations providing their own facilities for medical care. At the end of 1941 there were still fewer than a dozen of these known to the Bureau. These were scattered throughout the United States. There is a growing number of cooperative associations whose purpose is to furnish medical or hospital care on a prepayment or insurance basis,

[2] Not including building and loan associations which are only semicooperative in nature and which are regarded by the Bureau as financing rather than housing associations.

on contract with nonprofit organizations controlled by private physicians.

Until the exigencies of war forced the grounding of private airplanes, there was a small number of groups whose members united in the purchase of an airplane for their joint use. The Bureau has record of 19 such flying clubs—in Maryland, Virginia, and Wisconsin—but most of them are inactive at present.

Other interesting and rather novel types of associations include the cooperative houses run by old-age pensioners, one association which provides steam heat for its 93 members' dwellings, one association dealing only in electrical appliances, one dealing in clothing only (some of which it makes), one doing an automobile repair and storage business, one doing cleaning and pressing, and one operating a laundry (this association is the sole survivor of the considerable number of laundry associations formed during the past quarter century). Signs of the times are the few new associations formed to provide transportation for members on a cooperative basis, the cooperatives among the residents of migratory-labor camps, and those in the camps for conscientious objectors.

Students' cooperatives are found in many colleges and universities. The bookstores are the oldest form of student cooperatives, but an increasing number of student groups have been taking over large dwelling houses and there providing room and board. Other groups are operating dining clubs only. These activities assist the student of limited means to continue his education—which might be impossible otherwise. (It should be noted that a considerable proportion of campus activities reported as cooperative are actually controlled by the institution, with the students participating only to the extent of working for their room and board and thus reducing their living expenses.) During the next year or two the number and size of the student cooperatives—especially among the male students—will probably decrease as the students of draft age are called to military service and as others enter war industries. Already the Bureau has received reports from associations which state that their enterprise has closed "for the duration."

Under the Farm Security Administration's program for the rehabilitation of the small farmers and farm laborers, many cooperatives have been formed to serve FSA clients. Most of those that were in operation by the end of 1941 were in connection with subsistence homestead projects, where the homesteads formed a distinct community. Many of these cooperatives are not of the consumer type, but are mainly to provide producer supplies or market farm produce. Others only lease farm land or carry on the actual farming operations. However, among the FSA cooperatives were at least 135 handling consumer goods or providing some consumer service. These FSA associations differ from the usual consumers' cooperative in that they have been financed almost entirely by loans from Government funds. Consequently the members' equity is very small in proportion to the total assets. Also, the carrying charges and repayments on the Government loan tend to reduce the net earnings, so that the operating results, in terms of dollars and cents, are generally much below those shown by the Rochdale associations. Considerable improvement, however, was shown in 1941 as compared with 1940.

In general the independent Negro cooperatives have not been particularly successful in a monetary way, partly because the members

were too poor to finance them properly, partly because of managerial difficulties, and partly because of insufficient patronage and loyalty by the membership. However, several of the more successful of the FSA cooperatives are those of Negroes. In these associations the capital has been provided and a certain amount of supervision and training supplied, and the results appear to have been quite successful. Of 68 Negro consumers' cooperatives known to the Bureau, 13 are in FSA communities, largely in the South. Among the non-FSA Negro cooperatives, New York has the largest number but there are a considerable number in the South Atlantic States. Most of the remainder are in the District of Columbia, Illinois, Michigan, and Ohio.

Indian cooperatives are usually of the producer rather than consumer type, and have as their function the marketing of crops or handicraft articles. There are, however, at least 8 store associations, of the "trading post" type. All but 2 of these are in Arizona.

Extent of Consumers' Cooperation in 1941

On the basis of reporting associations and of the known trend, estimates of total number of associations, membership, and business for 1941 are given in table 1. In this table the associations are classified according to their major line of business. Further, the data for the local associations cover only consumers' cooperative activities, i. e., provision of consumer goods or consumer services. The water associations, for example, furnish water for family consumption; associations providing water for irrigation of farm land are not included. Likewise, the cold-storage associations cover only those which have lockers for family use; those which do quick freezing and storage of vegetables and fruits raised by farmers, for marketing, are regarded as producers' processing associations and therefore not appropriate for inclusion here. Because of the classification according to the main line of business, the extent of cooperative development of any given line tends to be obscured. The cold-storage figures, for example, should not be used as an indication of the extent of cooperative locker facilities for family purposes. Many associations in other lines of operation than cold storage are providing locker space as one department of the business. This is especially true of farmers' creamery associations; however, such associations would not be covered in this study at all unless the creamery also had a purchasing department handling consumer goods (in which case it would be classified as a "distributive department of a farmers' marketing association," not as a cold-storage association). Likewise, substantial numbers of petroleum associations have an automobile-repair department, but as the gasoline and oil business has been the more important, the association would here be classified as a petroleum association.

Although in the tabulations the distributive associations are classified, according to their main line of business, as "stores" and "petroleum associations," actually there is no longer the former clear-cut distinction between them. Practically all of the general stores and many of the grocery stores sell gasoline. Likewise, a large proportion of the petroleum associations have begun to handle groceries, or at least canned goods; some have opened a grocery department. The wisdom of this move, which the wholesales and other central organizations have been urging for several years, is increasingly apparent, as the

wartime restrictions on cars, gasoline, and tires are broadened, with corresponding reductions in trade in those lines.

A total distributive and service business, done by local consumers' cooperatives, amounting to $356,000,000 is shown in the table; of this, 97 percent was in distribution of commodities and 3 percent in services. The above amount represents over a 90-percent increase in the 5-year period since 1936, when the Bureau's last previous general survey was made. Farmers' marketing or processing associations having purchasing departments handling consumer goods accounted for an additional $119,122,000.

TABLE 1.—*Estimated Membership and Business of Consumers' Cooperatives, 1941*

Type of association	Estimated total number of associations	Members		Estimated business, 1941
		Fully paid (estimated)	Partly paid [1]	
Local associations		*Individuals*	*Individuals*	
Retail distributive	3,850	1,163,200	142,393	$345,150,000
Stores and buying clubs	2,400	500,000	43,125	160,000,000
Petroleum associations	1,400	645,000	89,102	179,000,000
Other distributive associations	50	18,200	10,166	6,150,000
Retail distributive or purchasing departments of marketing associations [2]	524	156,000		119,122,000
Service associations	621	264,400	3,416	10,897,000
Associations providing rooms and/or meals	325	28,000	1,315	4,525,000
Housing (apartments or dwellings)	59	2,100		[3] 1,575,000
Medical and/or hospital care:				
On contract or insurance arrangement	24	86,950	2	1,425,000
Own facilities	11	14,000	615	1,125,000
Burial:				
Own facilities, complete funeral	35	24,500	1,072	255,000
Caskets (burial on contract arrangement only)	6	2,500		10,000
Cold storage	45	25,000	141	900,000
Water	33	2,000	115	[3] 375,000
Printing and publishing	16	75,000	58	450,000
Recreational facilities	22	3,000	83	70,000
Miscellaneous	45	1,350	15	187,000
Electricity associations [4]	825	[5] 1,205,000		[6] 33,410,000
Telephone associations	5,000	330,000		[3] 5,485,000
Credit unions	10,425	3,532,000		[7] 362,779,000
Insurance associations	2,000	[8] 10,000,000		[9] 170,000,000
Federations				
Wholesale associations:				
Interregional:		*Associations*		
Wholesale distributive business	2	23		4,076,221
Other business				127,838
Regional:				
Wholesale distributive business	27	3,104		94,005,283
Retail distributive business				1,338,568
Service business				1,604,978
Other business				234,537
District:				
Wholesale distributive business	13	[10] 182		2,678,347
Service business				230,922
Other business				119
Service federations	12	1,128		316,665
Productive federations	7	18		5,988,426
Noncommercial federations:				
Nation-wide	5			
Regional and state-wide	12	414		
District, county, and city-wide	23	155		

[1] Not estimated; figures actually reported by associations making returns.
[2] Includes only purchasing departments handling consumer goods; figures are not estimates but data given by reporting associations.
[3] Gross income.
[4] Data furnished by Rural Electrification Administration, plus allowance (partly estimated) for pre-REA associations.
[5] Consumers served (mainly members).
[6] Operating revenues of associations whose lines were in active operation.
[7] Amount of loans made during year.
[8] Policyholders.
[9] Gross premium income.
[10] Should not be added to other membership, as a very large part of these associations are also members of the regional wholesales.

The federations in the cooperative movement are composed of, and serve, the local associations, not individual persons.

The commercial federations include organizations formed for the purpose of rendering one or more special services or producing certain commodities, and wholesale associations from which the member retail associations obtain their stocks of goods. Many of the wholesales also have service or productive departments. Among the commercial federations the wholesale distributive business of the wholesale associations in 1941 accounted for over 96 percent of the total business. Their service business, though still small in volume, each year shows an increase.

The central service associations covered in table 1 include those performing auditing service for local cooperatives, those insuring cooperatives' property or purchasing insurance and employees' fidelity bonds for them, trucking their supplies, or providing credit (either in the form of loans or in the rediscount of trade acceptances). The productive federations are owned in some cases by retail cooperatives, but more generally by two or more of the cooperative wholesales which have joined forces for the production of certain commodities in which they deal at wholesale.

Most of the noncommercial federations are educational in character. The "Nation-wide" group shown in the table includes the Cooperative League of the U. S. A., the Credit Union National Association, the Group Health Federation, the National Committee on Student Cooperatives, and the National Cooperative Women's Guild. The membership of these organizations consists of the regional educational associations in their particular field (as for instance, Eastern Cooperative League, Northern States Cooperative Women's Guild, the State federations of burial associations, the State credit union leagues, etc.). The primary educational associations (such as those covering a metropolitan area, county, or district within a State) are more or less informal organizations, often with no specific address except that of the secretary. As their purpose is mainly that of exchange of experience and the fostering of joint action among the local cooperative associations, they may meet only sporadically, as some occurrence or development necessitates, and be more or less inactive between times.

FARM AND URBAN CONSUMERS' COOPERATION

Estimates of the proportionate distribution of consumers' cooperation as between the farm and nonfarm associations are given in table 2. These estimates are only very rough approximations and should not be considered as strictly accurate. They are based upon information supplied by reporting associations for 1941 and on the Bureau's records for other years for nonreporting associations, together with an allowance for possible undiscovered associations. An association was considered to be a farmers' association if its membership and patronage are preponderantly of such producers, even though it may also serve and admit to membership townspeople or other nonfarm persons. An example is the group of insurance companies of the Ohio Farm Bureau, writing life, fire, and casualty insurance. These were entirely farmer associations in origin and are still primarily such. In recent years, however, they have entered the urban field and under the sponsorship of the local consumers' coopera-

tives are writing insurance in an increasingly large urban group. Nevertheless, these insurance associations, because they are still predominantly of farmer membership, were here counted with the farm group.

Hereafter, for convenience, in the discussion the nonfarm group has been designated as "urban," even though it includes many persons in small towns and even nonfarm families in rural districts.

The estimates indicate that in the retail distributive field, although the urban cooperatives outnumber the farmers' cooperatives, they are considerably smaller in size and therefore both in membership and in volume of business fell below the farmers' associations in 1941. To some extent the averages of the urban or consumer group was lowered by the buying clubs, which are found almost entirely in the urban areas.

In the service field the situation is reversed. The associations providing meals and rooms, housing (apartments and dwellings), and water are entirely urban, as are also the "other" associations (i. e., bakeries, creameries, flying clubs, and those providing a miscellany of services). Practically all of the cold-storage associations are farmers' organizations, as well as a large proportion of the burial, printing, and recreational associations. With the exception of a few pre-REA organizations, the development of the electricity cooperatives is among farm groups. All but about 10 percent of the insurance associations and all but about 30 percent of the telephone associations are farmer-owned. On the other hand, some 90 percent of the credit unions are in urban—usually industrial—groups. In the grand total, the urban cooperatives' business in 1941 exceeded that of the farmer groups, but only because the large volume of business (loans made) of the credit unions raised the total of all urban types sufficiently to overcome the farm lead in other types of associations.

TABLE 2.—*Estimated Relative Development of Local Consumers' Cooperatives Among Farm and Nonfarm Groups, 1941*

Type of association	Total number of associations	Members	Business
		Individuals	
All types:			
Farm	8,230	11,421,150	$391,307,000
Nonfarm	14,491	5,073,450	$536,414,000
Retail distributive	3,850	1,163,200	345,150,000
Farm	1,500	675,000	180,000,000
Nonfarm	2,350	488,200	165,150,000
Service (except electricity)	621	264,400	10,897,000
Farm	105	135,650	4,057,000
Nonfarm	516	128,750	6,840,000
Electricity: Farm	825	1,205,000	33,410,000
Telephone	5,000	330,000	5,485,000
Farm	3,500	230,000	3,840,000
Nonfarm	1,500	100,000	1,645,000
Credit unions	10,425	3,532,000	362,779,000
Farm	500	175,500	15,000,000
Nonfarm	9,925	3,356,500	347,779,000
Insurance	2,000	10,000,000	170,000,000
Farm	1,800	9,000,000	155,000,000
Nonfarm	200	1,000,000	15,000,000

Operations of Commercial Federations

Local or retail cooperatives have entered into federations in order to carry on various types of wholesaling, service, or productive activities. Practically all of such of these operations as are connected with the consumers' cooperative movement are covered in this report. Tables 3-6 give data for reporting associations only; the figures given in table 1 included estimates, for nonreporting and possible undiscovered associations.

COOPERATIVE WHOLESALES

The wholesale associations have in recent years widened the scope of their business and nearly all of the regional organizations provide some services in addition to the distributive business which is still their chief activity. Of a total business done by cooperative wholesales in 1941, amounting to $104,386,813, the wholesale distributive business accounted for $100,759,851 (or 96.5 percent), the retail branches of the wholesales had a business of $1,338,568 (1.3 percent), and services accounted for $1,925,900 (1.8 percent).

Net earnings by the wholesales on the 1941 business amounted to $4,750,497, of which $3,681,137 (or 77.5 percent) was declared in refunds on patronage. In many, if not most, cases, however, the patronage refund was not returned in cash. Foreseeing uncertain times ahead, and wishing to strengthen the cooperative framework to meet them, the member associations in many cases voted to pay the refunds in the form of share capital or to place the refunds in a "patrons' equity reserve" or in a revolving fund payable several years hence, thus giving the wholesale the use of the money in the meantime.

Figures showing the business of various kinds done by each of the reporting wholesales, as well as net earnings and patronage refunds, are shown in table 3. In the majority of cases, these figures represented substantial increases over 1940.

TABLE 3.—*Business, Net Earnings, and Patronage Refunds of Cooperative Wholesales, 1941*

Association, and department of business	Amount of business [1]	Net earnings	Patronage refunds
All associations	[2] $104,386,813	$4,750,497	$3,681,137
Interregional	[2] 4,204,059	238,093	238,093
Regional	[2] 97,273,366	4,355,875	3,327,138
District	[2] 2,909,388	156,529	115,906
Interregional			
Illinois: National Cooperatives	(3)	38,928	(4)
Indiana: United Cooperatives:			
Distributive, wholesale	4,076,221	238,093	238,093
Other	127,838		
Regional			
Illinois:			
Central States Cooperatives	229,394	7,230	5,784
Illinois Farm Supply Co	8,359,583	1,094,408	883,753
Indiana: Indiana Farm Bureau Cooperative Association:			
Distributive, wholesale	9,498,598	379,371	
Services:			
Auditing	10,075		
Trucking	169,717	42,072	588,852
Auto repair	8,605		
Insurance, bonds, etc	22,568		
Productive departments	[5] 3,200,005	482,085	
Other	169,774	[6] 307,570	

See footnotes at end of table.

TABLE 3.—*Business, Net Earnings, and Patronage Refunds of Cooperative Wholesales, 1941*—Continued

Association, and department of business	Amount of business [1]	Net earnings	Patronage refunds
***Regional*—Continued**			
Iowa:			
Farmers Elevator Service Co	$1,500,000	$55,000	(4)
Iowa Farm Service Co	[7] 54,350	35,518	$30,050
Cooperative Service Co	83,763	10,888	9,158
Massachusetts: United Cooperative Farmers	1,410,423	(4)	(4)
Michigan: Farm Bureau Services:			
Distributive, wholesale	3,523,985	51,709	45,268
Distributive, retail	206,376	32,534	
Services: Management	11,413	4,177	
Minnesota:			
Midland Cooperative Wholesale	6,228,796	124,781	102,061
Minnesota Farm Bureau Service Co.:			
Distributive, wholesale	836,828	33,112	33,112
Productive departments	[8] 448,076		
Farmers Union Central Exchange:			
Distributive, wholesale	8,098,812	321,055	174,257
Productive departments	[8] 45,387		
Missouri: Consumers Cooperative Association:			
Distributive, wholesale	8,677,313	[8] 161,346	109,644
Distributive, retail	383,450	12,306	3,547
Services:			
Auditing	7,541	(9)	(9)
Trucking	34,421	(9)	(9)
Insurance, bonds, etc.[10]	6,672	2,110	
Productive departments	[8] 1,826,257	250,247	206,859
Other	63,326	(9)	(9)
Nebraska:			
Farmers Union Cooperative Oil Association of Nebraska	(4)	11,157	11,164
Farmers Union State Exchange:			
Distributive, wholesale	2,398,898	99,741	45,041
Distributive, retail	748,742	(4)	(4)
Services: Trucking	99,470	(9)	(9)
New York: Eastern Cooperative Wholesale:			
Distributive, wholesale	2,107,827	40,645	
Services:			
Fidelity bonds	214		
Insurance	2,570	15	
North Dakota: Northwest Cooperative Society	30,944	762	643
Ohio: Farm Bureau Cooperative Association:			
Distributive, wholesale	9,929,399	248,370	105,932
Services: Trucking	50,185		
Loan	1,071,326		
Productive departments	[8] 877,006		
Pennsylvania: Pennsylvania Farm Bureau Cooperative Association:			
Distributive, wholesale	2,604,327	129,903	76,502
Productive departments	[8] 1,243,569	(9)	(9)
South Dakota: Farmers Union Cooperative Brokerage:			
Distributive, wholesale	595,762	[6] 1,119	
Services:			
Auditing	(4)	[8] 236	
Trucking	1,563	(9)	(9)
Other	1,437	(9)	(9)
Texas: Consumers Cooperatives Associated	969,762	25,133	7,860
Utah: Utah Cooperative Association:			
Distributive, wholesale	258,845	15,717	17,565
Services: Trucking	26,237	2,773	
Virginia: Southern States Cooperative	18,080,714	603,709	535,064
Washington:			
Pacific Supply Cooperative:			
Distributive, wholesale	3,191,045	228,645	[11] 200,000
Services:			
Gasoline transport	125,351		
Auto repair	25,340		
Wisconsin:			
Wisconsin Cooperative Farm Supply Co	543,649	14,168	9,278
Central Cooperative Wholesale:			
Distributive, wholesale	4,792,257	144,113	125,737
Services: Auditing	21,710		
Productive departments	[8] 319,764		
District			
California:			
Associated Cooperatives of Northern California	190,431	2,197	1,437
Consumers Cooperative Wholesale	9,987	375	(4)
Michigan:			
H-O-B Cooperative Oil Association	149,581	10,368	7,041
Northland Cooperative Federation:			
Distributive, wholesale	96,372	6,257	(4)
Services: Recreational facilities	259		
Other	119		

See footnotes at end of table.

TABLE 3.—*Business, Net Earnings, and Patronage Refunds of Cooperative Wholesales, 1941*—Continued

Association, and department of business	Amount of business[1]	Net earnings	Patronage refunds
District—Continued			
Minnesota:			
Trico Cooperative Oil Association	$254,980	$31,139	$30,551
C-A-P Cooperative Oil Association:			
Distributive, wholesale	145,615	17,054	13,105
Services:			
Trucking	14,899	3,620	
Gasoline transport	114,390	834	
Range Cooperative Federation:			
Distributive, wholesale	900,746		
Services:			
Trucking	16,868		
Auto repair	40,243		
Insurance	16,396	30,931	27,931
Mortuary	24,513		
Recreational facilities	3,320		
Productive departments	[5] 261,180		
Wisconsin:			
Fox River Valley Cooperative Wholesale	466,416	24,755	24,210
A & B Cooperative Association	121,473	8,588	7,728
Iron Cooperative Oil Association	125,351	5,855	(4)
Services: Insurance	34		
Cooperative Services	172,145	14,556	3,903
Price County Cooperative Oil Association	45,250	(4)	(4)

[1] Unless otherwise indicated, data are for wholesale distributive business.
[2] Does not include value of production shown for productive departments, as the wholesale value of these products was already included in "distributive, wholesale" figure.
[3] Business is that of pooling orders and making master contracts; figure for "business" therefore impossible to give.
[4] No data.
[5] This amount should not be added to other business, in order to obtain figure for total business of association, as its value is already included in wholesale distributive business.
[6] Loss.
[7] Brokerage income.
[8] Includes earnings from "services."
[9] Included with "distributive, wholesale."
[10] Through separate subsidiary organization.
[11] Approximate.

Based on identical associations reporting for both years, the number of member associations of the regional wholesales increased 8.9 percent and that of the district associations 18.6 percent. The wholesale distributive sales of the regional wholesales rose 23.0 percent during the year and those of the district associations 26.7 percent.

The regional wholesales in 1941 were operating 50 retail branches, or 1 more than in the preceding year; there was no change in the figure for the district wholesales, 5 such branches being operated each year.

Altogether, the regional wholesales had established 54 wholesale warehouses. Most of them had only 1 each, but five had 2 warehouses, one had 3 warehouses, one had 4, two had 6, one had 8, and one had 9 such warehouses.

Financial status of cooperative wholesales.—Cooperative wholesales strengthened their financial position during 1941. The net earnings rose from 2.7 percent of sales in 1940 to 6.9 percent in 1941. The return in relation to net worth in 1940 amounted to 18.9 percent but, for 1941, it rose to 27.2 percent of net worth for identical associations submitting balance sheets for both years.

Margins were also higher. The combined gross margin of the regional associations submitting operating statements was 10.1 percent in 1941 as compared with 9.3 percent in 1940; comparable percentages for the district associations were 13.5 and 11.5 percent, respectively The gross margin for all wholesale associations rose from 9.4 to 10.4 percent during the year. Average expenses amounted to 6.8 percent

for both years (although regional wholesales reported a slight decrease in expense ratios, this was offset by a rise in the expenses of district associations).

	1941 (percent)	*1940 (percent)*
Gross margin	10. 4	9. 4
Total operating expenses	6. 8	6. 8
Net operating margins	3. 6	2. 5

The total assets of associations for which data were available for both 1940 and 1941 increased 34.4 percent during the year. Seventeen percent of this increase was attributable to cash, 23 percent to receivables, 43 percent to expanded inventories, and 14 percent to capital assets. The current assets of the wholesale associations submitting balance sheets increased 77.4 percent as compared with an increase of 70.4 percent in current liabilities, resulting in an improvement in the amount of net working capital. The current ratio stood at 2.4 percent at the end of 1941. There was a slight decrease in the amounts reported as invested in other cooperatives. This decrease, however, was more than compensated for by the increase in other unspecified investments and undoubtedly represents a difference in classification, resulting from the failure of a number of associations to differentiate among their various investments.

Expanding operations continued to be financed largely out of the savings from business transacted with member associations. Although the net worth of associations submitting balance sheets increased by $3,326,563, share capital and credits represented less than one-fifth of this amount. A satisfactory growth occurred in the members' equity in the wholesale associations, as shown in table 4. Net worth increased 35.3 percent during the year, accounting for 60.9 percent of total liabilities at the end of 1941 as compared with 35.3 percent at the beginning of the year. With an increase in the relative importance of reserves in the combined balance sheet of the wholesales (general and patrons' equity reserves amounted to 16.1 percent of total liabilities at the beginning of the year as compared with 21.1 percent at the end of 1941), share capital decreased in relative importance from 35.0 to 26.8 percent of total liabilities.

Of the combined increase in total liabilities 43.9 percent was attributable to payables and other current liabilities. Bonded debt and mortgages were reduced 17.6 percent during the year and a combined cumulative deficit of $21,484 in 1940 (on the books of a few associations) was reduced to $1,355 at the end of the year.

TABLE 4.—*Percentage Distribution of the Combined Assets, Liabilities, and Net Worth of Cooperative Wholesale Associations, 1940 and 1941*

Assets, liabilities, and net worth	1941				1940			
	All wholesale associations	Interregional	Regional	District	All wholesale associations	Interregional	Regional	District
Assets								
Cash	15.3	30.6	15.4	12.0	10.9	61.3	10.2	15.7
Notes and accounts receivable [1]	19.6	48.4	19.2	23.1	19.9	16.6	19.6	24.4
Inventories	32.3	19.5	32.4	31.4	31.9	19.7	32.7	21.8
Investments:								
In other cooperatives	1.2	-------	1.0	4.6	2.0	-------	1.9	3.9
Other investments not specified	3.9	-------	4.2	.1	2.7	-------	2.9	(3)
Net capital assets [2]	25.1	1.5	25.2	26.1	31.0	2.2	31.3	29.4
Other assets	2.6	-------	2.6	2.7	1.6	.2	1.4	4.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Liabilities and net worth								
Notes and accounts payable [4]	25.0	6.0	25.2	25.4	26.1	20.2	26.3	23.6
Bonds, mortgages, etc.	5.7	-------	5.9	3.2	13.5	-------	14.3	3.2
Other liabilities	3.3	2.1	3.3	2.6	1.3	-------	1.3	2.4
Net worth	66.0	91.9	65.6	68.8	59.1	79.8	58.1	70.8
Share capital [5]	25.1	30.6	25.2	23.1	33.8	50.4	33.9	30.2
Share credits [6]	1.7	37.2	1.4	1.3	1.2	9.7	1.1	.5
Preferred stock	5.3	-------	5.7	-------	2.3	-------	2.5	-------
Reserves:								
General reserves [7]	13.5	2.7	13.6	13.7	10.7	3.9	10.4	16.1
Patrons' equity reserves [8]	7.6	21.4	7.2	11.3	5.4	15.8	5.7	-------
Undivided savings	12.8	-------	12.5	19.4	6.0	-------	4.8	24.0
Deficit [9]	(3)	-------	(3)	-------	.3	-------	.3	-------
Total liabilities and net worth	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Less reserve for bad debts.
[2] Includes land, buildings, equipment and facilities, furniture and fixtures, less reserves for depreciation.
[3] Less than half of 1 percent.
[4] Includes members' short-term deposits.
[5] Fully paid shares less treasury stock.
[6] Partly paid shares, including patronage refunds in credits toward shares.
[7] Includes education reserves and other reserves not otherwise allocated on financial statements.
[8] Reserves allocated on a patronage basis, including revolving funds.
[9] Cumulative deficit—deduct.

SERVICE OPERATIONS OF CENTRAL ORGANIZATIONS

In addition to various types of services provided in service departments of the wholesale associations, there are several associations whose whole function is that of a service nature. These service associations, like the wholesales, are owned and controlled by the affiliated local associations. Data for each of these associations are given in table 5, which shows the combined service business done by cooperatives of the federated type in 1941. As it indicates, services to the value of $2,242,565 were provided in 1941, about equally divided between service associations and the service departments of wholesales.

TABLE 5.—*Service Activities of Central Cooperative Organizations, 1941*

Association	Member associations	Service	Amount of business	Net earnings	Patronage refunds
Service departments of wholesales					
Indiana: Indiana Farm Bureau Cooperative Association.	.....	Trucking	$169,717	$42,072	(1)
		Auto repair	8,605		
		Auditing	10,075		
		Insurance	22,568		
Michigan:					
Farm Bureau Services	.....	Management	11,413	4,177	(1)
Northland Cooperative Federation	.....	Recreation (cooperative park).	259	(1)	(1)
Minnesota:					
C-A-P Cooperative Oil Association	.....	Trucking	129,289	4,454	(1)
Range Cooperative Federation	.....	do	16,868	(1)	(1)
		Auto repair	40,243	(1)	(1)
		Insurance	16,396	(1)	(1)
		Mortuary	24,513	(1)	(1)
		Recreational facilities.	3,320	(1)	(1)
Missouri: Consumers Cooperative Association	.....	Trucking	34,421	(1)	(1)
		Auditing	7,541	(1)	(1)
		Insurance, fidelity bonds.[2]	6,672	2,110	.....
Nebraska: Farmers Union State Exchange	.....	Trucking	99,470	(1)	(1)
New York: Eastern Cooperative Wholesale	.....	Fidelity bonds	214	(1)	(1)
		Insurance agency[2]	2,570	15	.....
Ohio: Farm Bureau Cooperative Association	.....	Loans[2]	1,071,326	1,598	.....
		Trucking	50,185	(1)	(1)
South Dakota: Farmers Union Brokerage	.....	do	1,563	(1)	(1)
		Auditing	(3)	[4] 236	(1)
Utah: Utah Cooperative Association	.....	Trucking	26,237	2,773	(1)
Washington: Pacific Supply Cooperative	.....	do	125,351	(1)	(1)
		Auto repair	25,340	(1)	(1)
Wisconsin:					
Central Cooperative Wholesale	.....	Auditing	21,711	906	(1)
Iron Cooperative Oil Association	.....	Insurance agency	34	(1)	(1)
Total	.....	.....	1,925,900	57,869	(1)
Independent service organizations					
Minnesota:					
Cooperative Auditing Service	413	Auditing, bookkeeping instruction, tax service.	44,258	3,090	$2,781
Consumers Agency	302	Insurance agency	19,236	574	.....
Farmers Union Accounting Services	110	Auditing, accounting.	11,976	1	.....
Farmers Union Cooperative Credit Association	108	Loans	29,291	1,853	1,612
Farmers Union Agency	(3)	Insurance agency	8,952	947	.....
Midland Credit Corporation	20	Rediscounting of trade acceptances.	1,848	807	625
Montana: Farmers Union Carriers	15	Trucking	12,636	1,595	.....
South Dakota: Equity Audit Co	37	Accounting, tax service.	13,996	1,726	(3)
Washington:					
Grange Cooperative Printing Association	11	Printing	31,151	2,674	2,674
Northwest Cooperative Auditing and Service Association.	52	Auditing, bookkeeping, tax service.	(3) (3)	1,043	708
Wisconsin:					
Central Finance	2	Financing of sales contracts.	51,000	290	.....
Cooperative Publishing Association	58	Printing	92,321	1,186	.....
Total	1,128	.....	316,665	15,786	8,400
Grand total	1,128	.....	2,242,565	73,655	8,400

[1] Data not reported separately; included with data for "distributive, wholesale" (table 3).
[2] Through separate subsidiary organization.
[3] No data.
[4] Loss.

PRODUCTION BY CENTRAL ORGANIZATIONS

Nearly all of the production carried on by cooperatives in this country is done by the wholesales or other federated associations. Most of the central productive associations shown in table 6 are owned jointly by two or more of the regional wholesales shown in table 3.

Productive departments of wholesales had an output in 1941 valued at $8,221,244 and the central productive associations had an output totaling in value $5,988,426. It will be noted that most of the goods produced by the central productive associations are producer rather than consumer goods; they are included here because the owner wholesales fall within the scope of this report by reason of their handling consumer goods. As the table indicates, these associations saved their owners nearly a million dollars in the one year, 1941.

TABLE 6.—*Production by Central Cooperative Organizations in 1941*

Association	Member associations	Product	Amount of business	Net earnings	Patronage refunds
Productive departments of wholesales					
Indiana: Indiana Farm Bureau Cooperative Association.	------	Gasoline, kerosene, lubricating oil.	$1,973,798	$482,085	------
		Printing	17,463		
		Fertilizer	1,208,744		
Minnesota:					
Farmers Union Central Exchange	------	Lubricating oil	45,387	(1)	(1)
Minnesota Farm Bureau Service Co	------	Paint, feed, fertilizer.	448,076	(1)	(1)
Range Cooperative Federation	------	Meat products	70,625	(1)	(1)
		Butter	173,551	(1)	(1)
		Cheese	17,004	(1)	(1)
Missouri: Consumers' Cooperative Association	------	Printing	12,516	(1)	(1)
		Crude oil [2]	[3] 14,704	[3] 9,242	[3] $4,959
		Oil pipe line [2]	103,311	36,690	30,639
		Oil refining [2]	1,695,726	204,315	171,261
Ohio: Farm Bureau Cooperative Association	------	Feed	877,006	(1)	(1)
Pennsylvania: Pennsylvania Farm Bureau Cooperative Association.	------	------do	1,243,569	(1)	(1)
Wisconsin: Central Cooperative Wholesale	------	Coffee roasting	191,341	(1)	(1)
		Bakery products	128,423	(1)	(1)
Total	------	------	8,221,244	732,332	206,859
Joint production by wholesales					
Indiana: National Farm Machinery Cooperative	[4] 4	Farm machinery, equipment, and supplies.	91,428	[5] 13,754	------
Maryland:					
Fertilizer Manufacturing Cooperative	[6] 2	Fertilizer	1,035,074	------	------
Cooperative Fertilizer Service	[7] 3	------do	3,855,402	176,637	109,395
North Carolina: Cooperative Mills	[8] 2	Feed	476,360	34,644	34,644
Ohio:					
Cooperative Mills	[9] 3	------do	------	------	------
Farm Bureau Chemical Cooperative	[10] 2	Fertilizer	507,162	6,780	------
Washington: Grange Powder Co	[11] 2	Explosives, fertilizer.	23,000	396	------
Total	18	------	5,988,426	204,703	144,039
Grand total	------	------	14,209,670	937,035	350,898

[1] Included with data for wholesale; see table 3. [2] Through separate subsidiary organization. [3] 10 months, operations. [4] Member-owners are Farm Bureau Cooperative Associations of Indiana, Ohio, and Pennsylvania, and Pacific Supply Cooperative. [5] Loss. [6] Member-owners are Ohio Farm Bureau Cooperative Association and Cooperative G. L. F. Exchange (Ithaca, N. Y.).

[7] Member-owners are Pennsylvania Farm Bureau Cooperative Association, Southern States Cooperative (Virginia), and Cooperative Farm Services (West Virginia).

[8] Member-owners are Southern States Cooperative and Farmers Cooperative Exchange (Raleigh, N. C.).

[9] Member-owners are Farm Bureau Cooperative Associations of Ohio and Pennsylvania, and Southern States Cooperative.

[10] Member-owners are Farm Bureau Cooperative Associations of Indiana and Ohio.

[11] Member-owners are Washington State Grange and Grange Cooperative Wholesale (Seattle).

Operating Results of Local Associations, 1941

Altogether, the more than 1,600 local distributive and service associations which reported on operating results, resources, etc., had combined net earnings amounting to $11,533,148, after subtracting losses of $216,916 by 116 associations.

The data indicate that although the operating margins in the retail petroleum business have narrowed greatly in recent years, nevertheless the earnings possibilities still are greater than in retail-store operation. Among the petroleum associations the average earning for all associations (including those which sustained losses) was $11,313 per association; the corresponding figure for the store associations was $3,474. Only slightly over 3 percent of the petroleum associations reporting on earnings, as compared to 9 percent of the stores, showed a loss on the year's operations; the average losses per association were $1,248 and $1,503, respectively.

Essential summary averages for the reporting associations operating stores and petroleum stations are given in table 7.

TABLE 7.—*Average Membership, Assets, Sales, and Net Earnings of Reporting Store and Petroleum Cooperatives, 1941*

Item	Stores and buying clubs		Petroleum associations	
	Number or amount	Percent of increase over 1940	Number or amount	Percent of increase over 1940
Membership per association	264	10.4	548	5.2
Share capital per association	$8,327		$16,104	
Total assets per association	$31,226		$56,528	
Net worth per association	$20,162		$33,820	
Deficit per association	[1] $4,611		[2] $626	
Sales per association	$89,153	21.6	$156,315	26.4
Net gain per association (all associations)	$3,474	27.1	$11,313	29.3
Net operating loss per association	[3] $1,503		[4] $1,248	

[1] For 2.2 percent of associations reporting on net worth.
[2] For 0.15 percent of associations reporting on net worth.
[3] For 9.3 percent of associations reporting on earnings.
[4] For 3.2 percent of associations reporting on earnings.

Large losses, aggregating $60,530, among the "other distributive" associations (which include bakeries, creameries, coal yards, lumber yards, etc.) were due almost entirely to a $60,000 loss by one association, which the earnings of the other associations were not large enough to offset; thus, for the whole "other" group there was an aggregate loss of $1,788.

The service associations showed smaller earnings than the distributive associations and a wider incidence of losses. This was due to a large extent to the fact that a high percentage of these associations operate at charges set as near cost as possible. Thus, among the whole service group, about 80 percent had a net gain averaging $1,620 per association; the 20 percent reporting losses averaged $1,112 per association.

Relation of net savings to net worth.—The ratio of net savings (before payment of patronage refunds and income taxes) to net worth was computed for over 1,000 individual associations. Forty-seven of the associations, or 4.7 percent of the total, reported a loss for the year.

Percentages were not computed for the associations with losses, since in practically every instance the amounts were small and in only a few cases was the original capital impaired. The average ratio of net savings to net worth was most satisfactory, being 24 percent for all associations, 20 percent for the stores, 27 percent for the petroleum, and 21 percent for the distributive departments of marketing associations. The range of usual experience in the case of all associations combined was 13.4 to 36.1 percent. One hundred and twenty associations, or 12.6 percent of the total with gain, had ratios in excess of 50 percent. Undoubtedly the high ratios reported by the smaller associations reflects the small amount of original capital invested in the business. One association with assets of over a million dollars earned between 60 and 70 percent on its invested capital. Petroleum associations were apparently more profitable than stores—the typical range of experience for the stores was 11.6 to 30.0 percent as compared with 16.8 to 42.9 percent for the petroleum cooperatives.

Share capital and total assets.—The need for additional capital is especially important as a result of current market conditions caused by the war. Generally, cooperative organizations commence their operations with only a limited amount of capital. As the business progresses many associations have developed the policy of returning a portion of the savings on patronage in the form of shares and credits toward shares. Examination of data for over 1,500 associations indicates that the average amount of paid-in share capital per member has a definite tendency to increase with the size of the association. The average amount of paid-in share capital per member amounted to $20.58 for associations with total assets of under $10,000, as compared with $31.66 for associations with total assets of $250,000 and over. The highest average amount reported for any size class was $48.39. The average amount of paid-in share capital per member for the 1,518 associations with fiscal years ending in 1941, classified by size of total assets is shown below:

Total assets of—	*Average paid-in capital per member*
Under $10,000	$20.58
$10,000 and under $25,000	32.55
$25,000 and under $50,000	39.43
$50,000 and under $75,000	47.55
$75,000 and under $100,000	48.39
$100,000 and under $250,000	44.12
$250,000 and over	31.66
Average, all associations	37.30

Examination of the relationship between the average amount of paid-in share capital per member and the par value of shares specified in the bylaws of the associations suggests that even in the case of the older associations, members seldom subscribe for more than one or two shares. It should be noted, however, that the relatively larger amounts of share capital per member found among the larger associations do not necessarily represent amounts "put into" the business, in view of the relatively common practice of paying patronage refunds in shares.

Relation of net worth to total assets.—Data showing the relationship between net worth and total assets were available for 1,034 associations. On the average, members' equities amounted to 71.8 percent of total assets; the range of usual experience was from 55.0

to 88.8 percent. In only 186 associations, or 18.0 percent of all those reporting, were the members' equities less than 50 percent. In 140 associations net worth ranged from 30 to 50 percent of total assets. The average was 72.6 percent for the stores, 70.7 percent for the petroleum associations, and 72.0 percent for the marketing associations with distributive departments. Cooperative accountants often suggest 75 percent as standard.

The members of 94 stores, 98 petroleum associations, and 49 marketing associations, or 20 percent of all associations studied, had an equity of 90 percent and over. The data suggest that despite the limited amount of original capital, cooperatives have nevertheless attained a cooperatively high degree of economic self-sufficiency and financial independence.

Relation of sales to total assets.—Total assets of the typical distributive association reporting on both net worth and assets amounted to $37,000. Store associations had median assets of $25,600 and average sales of $79,800. Among the cooperative store associations the range was from $35,300 to $169,800. Only 5.9 percent of the associations submitting data on total assets and volume of business had annual sales of less than $10,000. The typical cooperative petroleum association, on the other hand, had an annual sales volume of $80,200 in 1941—the usual range was from $44,800 to $146,300. The relatively large sales volume of petroleum associations is undoubtedly due to the inclusion of farmers' associations, which often sell a large number of side lines, such as farm machinery and other miscellaneous farm supplies, and the members of which use large amounts of gasoline in the business of the farm.

As would be expected, a marked relationship was found between the annual sales volume and the size of total assets. Of the 199 associations with total assets under $10,000, 86 or 43.2 percent had annual sales of less than $20,000. None of the associations with assets of less than $10,000 had sales of $250,000 and over, although 3 associations did an annual business of between $100,000 and $250,000, which is a rather large volume for the small amount of capital involved. Six of the 14 associations with total assets of $250,000 and over had annual sales exceeding $1,000,000.

Working capital.—The ability of cooperative managers to meet current liabilities in everyday transactions and to supply the needs of the members depends upon the amount of working capital. In general the ratio of current assets to current liabilities is considered the measure of solvency and relative financial strength; the standard is usually 2 to 1. Four-fifths of the 258 associations reporting in detail, had a ratio of more than standard. The less than 20 percent of associations which had ratios under 2 to 1, the working capital was inadequate for their needs. Although the average for the 258 associations was 5.5 to 1, in a number of instances cash balances were insufficient to cover current accounts payable.

Employment and Wages in Cooperative Associations

The 1,390 cooperative associations that reported in 1941 employed an average of nearly 12,000 persons in 1941; wages paid amounted to nearly 18 million dollars. The employees and wages for each type of association, and the average annual full-time earnings in each, are shown in table 8.

TABLE 8.—*Employment and Wages in Consumers' Cooperatives, 1941, by Type of Association*

Type of association	Number of associations reporting	Total number of full-time employees	Total amount paid in wages, 1941	Average full-time yearly earnings [1]
Local associations				
Retail distributive:				
Stores	621	3,786	$4,254,505	$1,181
Petroleum associations	564	4,009	7,323,042	1,363
Other	12	488	1,026,549	2,192
Service:				
Medical and/or hospital care—				
On contract	5	156	221,483	1,420
Own facilities	5	126	173,228	1,353
Burial: Own facilities (complete funeral)	16	25	30,600	1,439
Meals and/or rooms	67	347	345,709	1,179
Housing (apartments or dwellings)	14	84	124,961	1,558
Cold storage	21	83	72,519	1,133
Water	5	23	50,816	2,070
Printing and publishing	8	72	105,231	1,462
Other	4	15	9,718	1,106
Total	1,342	9,216	13,738,361	----------
Federations				
Commercial federations:				
Wholesales	32	2,079	3,631,265	1,362
Service associations	8	52	97,707	1,881
Productive associations	6	625	397,155	635
Noncommercial federations: Regional	2	6	13,975	2,329
Total	48	2,762	4,140,192	----------
Grand total	1,390	11,978	17,878,553	----------

[1] Average based only upon associations reporting on both number of employees and amount paid in wages.

STATUS OF LABOR BANKS, 1942

ON June 30, 1942, the four labor banks showed increases, as compared with the same date in 1941, of 6.1 percent in capital, surplus, and undivided profits, 7.6 percent in deposits, and 6.7 percent in total assets. With the exception of the capital, etc., account of the Amalgamated Bank of New York (which fell 5.1 percent) all of the banks showed substantial gains in capital, deposits, and assets. Data, supplied to the Bureau of Labor Statistics by the Industrial Relations Section of Princeton University, are given for each of the four banks in the accompanying table.

Status of Labor Banks as of June 30, 1942

Name and location of bank	Capital, surplus, and undivided profits	Deposits	Total assets
Amalgamated Trust & Savings Bank, Chicago, Ill	$1,015,337	$11,678,229	$12,737,679
Union National Bank, Newark, N. J	522,463	4,640,586	5,179,551
Amalgamated Bank of New York, N. Y	720,905	8,389,356	9,235,648
Telegraphers National Bank, St. Louis, Mo	765,480	4,259,002	5,064,591
All banks: 1942	3,024,185	28,967,173	32,217,469
1941	2,851,116	26,914,510	30,192,066

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1942 CONVENTION OF AMERICAN FEDERATION OF LABOR

LABOR'S contribution to the war and its determination to win the war and secure the peace were the outstanding features of the sixty-second convention of the American Federation of Labor, held in Toronto, Canada, October 5–15. These objectives permeated the 250-page report of the executive council to the convention, the speech of President William Green in opening the convention, President Roosevelt's message to the delegates, and the speeches delivered by the Prime Minister of Canada, W. L. Mackenzie King, the United States Secretary of Labor, Frances Perkins, the representatives of the War and Navy Departments, and the fraternal delegates of the British Trades-Union Congress and the Canadian Trades and Labor Congress. They were directly or indirectly a part of most of the resolutions adopted by the more than 500 delegates to the convention.

The keynote of the convention was sounded by the executive council, which prefaced its report on the year's work of the Federation by stating:

> The organized labor movement, like every other national institution, must for the duration of the war devote its resources and its energies to war problems and war needs.
>
> Undertakings and objectives important for human welfare cannot be advanced when our national institutions themselves are in peril. We, therefore, are holding many such commitments in reserve until the war is won, and are putting our energies in leadership which will enable our unions to help maintain community war undertakings on a democratic basis, so that every group of citizens shall have a right to participate and to serve.

This was further emphasized by President Green of the Federation, who said:

> The great issues involved in the World War transcend and overshadow every other question that could be presented or considered at this convention. * * * I can see that you are thinking seriously, and that you are moved by one sincere and single desire, and that is to so serve and act at this convention of the American Federation of Labor as to promote the common cause, to further the winning of the war, and to do everything that lies within our power to establish peace.

United States Labor in the War Effort

Organized labor's share and accomplishments in the war effort were summarized in President Roosevelt's message to the convention. It read in part:

> Will you express to the officers, delegates, and members of the American Federation of Labor assembled at this, its sixty-second annual convention, my cordial appreciation of all they have done to further the war effort? Our production record speaks for itself and for the working people; it is splendid. Everywhere during my recent inspection of war activities, I found the workers doing all that was laid out

for them and more. At every turn they gave assurance that they can take whatever it takes to win this war. They are not afraid of hard, continuous, precise, and dangerous work. They are walking up to it as their duty and part in the war. They are proud of it.

The various groups which comprise the Federation will, I hope, make available at this time their most statesmanlike leadership. Officers and delegates of the trade-union movement, consecrated to preserve the freedom of humanity, can serve today the whole people of this country, as well as the loyal membership.

A more detailed analysis of labor's sacrifices on behalf of the war and of its accomplishments on the production front was made by the Secretary of Labor, Frances Perkins. Among other things, she stated:

American labor is to be congratulated on the way it has faced its responsibilities since the United States was forced into the second World War. Trade-unions have demonstrated their sense of discipline and public responsibility.

Military front.—The fury of unprovoked attack fell upon members of the American Federation of Labor as soon as it fell upon the armed forces of the United States. * * * The raids of the Japanese on Guam and Wake Island found the members of your organization working there side by side, doing their work with the heroic sailors and marines who defended those island outposts.

* * * Members of the teamsters' organization have risked their lives and have made the supreme sacrifice in the noble work of keeping open the life line to China. * * * Machinists and electricians have gone to carry on their trade for Uncle Sam in other far-flung parts of the world in the defense of human freedom.

Production front.—After Pearl Harbor, * * * labor voluntarily set aside for the duration its basic right to strike against producers of war equipment and entrusted the settlement of its legitimate disputes to the process of mediation and arbitration. It is notable that this vital step was not taken by Government decree. * * *

* * * Labor recognizes the usefulness of the Conciliation Service in dealing with the great mass of labor disputes and the authority of the National War Labor Board as the agency of final determination.

Organized labor has participated actively in all of the wage stabilization programs proposed by the Government. Your own organization has been a party to the most notable of these programs, those covering building construction and shipbuilding. In each of these cases the members of your organization gave up certain gains they had expected. They made these sacrifices in the interest of stable wage and collective-bargaining conditions.

Trade-unions have responded to the need for more and more workers in munitions factories by setting aside for the duration of the war one after the other of the long-established practices that have been developed to protect members against low wages, poor working conditions, and unemployment. Membership requirements have been relaxed and initiation fees have been reduced by many unions. Apprenticeship programs have been greatly liberalized and unions have participated fully and effectively in the progress for training new workers and for diluting skilled with unskilled labor—known in the United States as upgrading.

Organized labor is directing its energies as never before to the achievement of maximum production on the job. Organized labor is helping to iron out the kinks in the production line, is helping to devise new methods of work to speed production and to reduce the waste of critical materials. It is taking an active part in the training of new workers—women, those in the older groups, and the unskilled so as to reduce delaying accidents on the job. Here is an effort that calls for the very best leadership that trade-union leadership can give.

The President's 7-point program to check the rise in living costs was supported from the beginning by organized labor. Your organization has actively promoted the voluntary purchase of war bonds and stamps and has urged your members to authorize a pay-roll deduction for this purpose. Your unions themselves have invested a large part of their capital resources in victory bonds.

War Effort of British Labor

The labor situation in Great Britain, what the trade-unions are doing, and how the average trade-unionist feels and thinks about the war, was related to the delegates by Mr. Jack Tanner, fraternal delegate of the British Trades-Union Congress and president of the

Amalgamated Engineering Union, which has a membership of 665,000, largely employed in the production of armaments. He told the delegates that Ernest Bevin, the British Minister of Labor, reported in September that of 33 million persons in Britain between the ages of 14 and 65, 23½ million (more than 2 out of every 3) were engaged in full-time war work. Less than 3 million, including children and the sick, crippled, and aged, are not engaged in some form of national defense. This is apart from millions working part time. Housewives are coming into the war industries in increasing numbers; they are putting in 4 to 6 hours a day in the factories and then going home to do their housework and look after their families. Men and women are working long hours—many still between 60 and 70 hours per week. With overtime, the average is now about 56 hours per week.

> The manufacture and supply of civilian goods has been drastically curtailed in Britain. Raw materials, labor, factory space, machines, and imports are all controlled by the Government and directed into war production. * * *
>
> * * * Rationing now covers most foodstuffs, clothing, and soap, and fresh articles are being added to the list.
>
> Our scrap collections have left little of anything not actually in use.

Labor-management production committees.—The Amalgamated Engineering Union was founded in Great Britain in 1851, more than 90 years ago. As thousands of women are entering the industry every month, the union by a recent referendum vote broke with tradition and decided to admit these woman workers to full membership.[1]

Last year this union launched among its members a series of inquiries to determine the progress of production in the engineering workshops and shipyards under the jurisdiction of the union.

> Production increases as great as 80 percent, 100 percent, and 150 percent have taken place since March 1942. By far the largest increases have taken place in factories with production committees.
>
> In 60 percent of the cases where the work people have put forward suggestions for improving production, these have been accepted and put into effect. The men report that better cooperation between themselves and the management has contributed to the increase in output.
>
> A notable feature is the improvement in timekeeping and the overcoming of avoidable absenteeism. * * *

Another very interesting point is the tremendous improvement in the efficiency of the new entrants into industry.

Mr. Tanner also stated that as a result of strong representations by the worker members of the committees, such points have been won as the elimination of over-fine limits and finish unnecessarily insisted upon in certain work. Workers are suggesting better uses for factory space; they are drawing attention to the lack of certain types of labor or tools at particular stages of production and proposing more intelligent allocations; they are encouraging upgrading and helping to train the inexperienced labor forces newly drafted into industry and they are bringing forward all manner of ideas for improving the physical conditions for the workers—lighting, ventilation, first aid, canteens, safety measures, transport, and so on—which alone can ensure their fitness to sustain the great efforts in production now required of them.

This progress was made in spite of the traditional opposition of British workers to the idea of collaboration with the employers on

[1] See article on p. 1007 of this issue.

any ground whatsoever. The British workers are determined to let nothing deter them from their greatest of all tasks—the defeat of Fascism and the liberation of mankind.

Membership of American Federation of Labor

One immediate result of the war effort has been the record-breaking increase in membership of the unions affiliated with the A. F. of L. As of August 31, 1942, the paid-up membership of affiliated national and international organizations and directly chartered local trade and federal labor unions of the Federation totaled 5,482,581. This represented a gain of 913,525 members over the year interval and an advance of nearly 1,500,000 since the end of August 1939, which marked the outbreak of World War II. It was also about 1,400,000 higher than the peak membership attained by the A. F. of L. in 1920, shortly after the termination of World War I.

With but few exceptions, the largest gains in membership during 1942 were registered by unions whose ranks have been greatly swelled by war workers. The machinists' paid-up membership to the A. F. of L. rose by 106,700 during the 12 months ending August 31, 1942. During the same interval, hodcarriers and common laborers added 100,000 members, the teamsters reported an increase of 97,300 members, carpenters and joiners 66,700, and the railway clerks 45,800. Boilermakers and iron ship builders more than doubled their membership from 42,600 in 1941 to 90,300 in 1942. Altogether, 15 unions increased their average paid-up membership in the A. F. of L. by 10,000 or more members.

American Federation of Labor Affiliates, with Reported Membership Increases of 10,000 or More, 1941 and 1942

Union	Membership [1]		Increase in membership
	1942	1941	
International Association of Machinists	328,500	221,800	106,700
Hod Carriers and Common Laborers	283,700	183,700	100,000
International Brotherhood of Teamsters, Chauffeurs, etc	505,600	408,300	97,300
United Brotherhood of Carpenters and Joiners	366,700	300,000	66,700
Boilermakers and Iron Ship Builders	90,300	42,600	47,700
Brotherhood of Railway Clerks	155,800	110,000	45,800
International Association of Bridge and Structural Iron Workers	86,100	52,000	34,100
International Brotherhood of Maintenance of Way Employees	96,900	65,700	31,200
Hotel and Restaurant Employees, etc	242,000	214,100	27,900
United Textile Workers of America	35,300	15,200	20,100
International Molders Union	62,100	42,100	20,000
Brotherhood of Painters, Decorators and Paperhangers	122,600	104,900	17,700
International Protective Association of Retail Clerks	100,000	85,400	14,600
Pulp, Sulphite, and Paper Mill Workers	56,700	44,200	12,500
International Union United Automobile Workers	36,800	26,100	10,700

[1] Based on average per capita payments to the American Federation of Labor for the year ending August 31, 1942 and 1941.

A number of unions did not show any change in membership from 1941 to 1942. Of the larger organizations, per capita membership payments were unchanged for barbers, bricklayers, building-service employees, operating engineers, ladies' garment workers, hat, cap and millinery workers, letter carriers, musicians, and stage employees. In a few instances, notably Government employees, teachers, and

railroad telegraphers, the reported paid-up membership for 1942 was slightly below that of the preceding year.

Membership in local trade and federal labor unions which are directly organized and chartered by the American Federation of Labor rose nearly 50,000 during the year to a total of 245,977. The number of these unions likewise increased from 1,441 in 1941 to 1,517 in 1942.

The total number of national and international unions affiliated with the A. F. of L. dropped from 106 to 102. This decrease was due to the suspension of three organizations (sheep shearers, circus and carnival employees, and brewery workers) and the withdrawal of the sleeping-car conductors. Analysis of the membership strength of the 102 unions affiliated with the A. F. of L. disclosed a range in size from membership of less than 1,000 for 13 unions to a membership of over half a million for the teamsters. Within this range, 25 unions reported paid-up membership between 1,000 and under 10,000; 39 unions averaged from 10,000 to less than 50,000; and 14 unions from 50,000 to 100,000. Eleven unions, including the teamsters, reported an average paid-up membership of 100,000 or more for 1942. In the order of the size of their membership, these organizations are: Teamsters (505,600); carpenters and joiners (366,700); machinists (328,500); hod carriers and common laborers (283,700); hotel and restaurant employees (242,000); ladies' garment workers (225,000); electrical workers (207,900); railway clerks (155,800); painters (122,600); retail clerks (100,000); and musicians (100,000).

Organizing Activities

The executive council reported that its staff of 160 organizers had assisted the organizing staffs of many of the national and international unions which conducted campaigns for new members during the course of the year. Federation organizers were also active in establishing local trade or federal labor unions in new industries or in occupations not currently covered by the jurisdiction of existing A. F. of L. unions. During the past year over 350 federal labor unions were established in such industries as chemicals, agriculture, grain processing, aluminum, fabricated metals, and rubber, and in such occupational groups as office employees and railway patrolmen.

To facilitate the work of organization and to assist in the solution of problems common to workers in these various industries or occupational groups, the Federation has brought together a number of federal labor unions organized in the same field into national councils. The six councils now in existence embrace workers in the aluminum industry; fabricated metal; flour, feed, cereal, rice and grain mill; and chemical industries, as well as railway patrolmen and office workers. In the case of the latter group of workers, following the instruction of last year's convention, the Federation reorganized the Office Employees International Council at a conference in July 1942. This conference was attended by representatives from more than 50 local unions of "white-collar" office and professional workers.

In reporting on the general success of organizing activities of A. F. of L. unions during the past year, the executive council stated:

> Although we as an organization have promised to forego the right to strike for the duration of the war, nevertheless, by collective bargaining and by utilizing

the United States Conciliation Service and the National War Labor Board, we have secured better provisions in our collective agreements and improved the character of these contracts. We have been able to include more closed shop agreements and maintenance of union membership clauses in agreements than ever before in our history. We have done our best to put the spirit of union-management cooperation into the production drive organized by the War Production Board.

Labor Unity

The delegates unanimously approved the resumption of negotiations between the American Federation of Labor and the Congress of Industrial Organizations to establish organic unity in the labor movement. In reporting on this portion of the report of the executive council and on the four resolutions on labor unity submitted to the convention, the committee on resolutions stated:

* * * We are convinced that there are those in the Congress of Industrial Organizations who have a sincere desire to reestablish unity, and your committee sincerely hopes that this desire will be translated into a practical accord.

Your committee recognizes that the problems which the unity committee must consider are various and some of them difficult. It seems evident that the most important ground work to successful negotiations is the reestablishment of a better relationship between the membership of both organizations. We are convinced if these negotiations are to be successful, bitterness of feeling must be eliminated and hostilities come to an end.

Your committee believes that it would be difficult indeed for the unity committee to make satisfactory progress if in the meantime hostile raiding tactics continue. We therefore urgently recommend that this convention approve of an immediate armistice as an essential evidence of good faith and sincerity.

Post-War Readjustment

Peace objectives, post-war international problems, and post-war economic readjustments came up for discussion on several occasions. They were covered in the report of the resolutions committee on the report of the executive council and on several resolutions dealing with these problems; in the report of the committee on international labor relations dealing with the International Labor Organization, Pan American labor, and the International Federation of Trade-Unions; and also in the report of the committee on education. The convention approved the position of the executive council which called for adequate representation and a full voice of organized labor in the United States delegation to negotiate the peace treaty. The delegates also recommended that the American Federation of Labor familiarize itself thoroughly with the peace objectives and policies of other trade-union federations in Europe, so that labor organized on an international basis could present a unified peace program.

In reporting on the activities of the International Labor Organization, the committee on international labor relations urged that every effort be made to secure adequate financial support for the I. L. O. to enable it not only to carry on the extensive program of research in which it is now engaged but to expand its work. The same committee also recommended that the excutive council of the A. F. of L. consider the advisability of creating an Inter-American Labor Council or other such agency for the purpose of obtaining and disseminating to labor in North, Central, and South America facts pertinent to the war and to keep all workers in the Americas informed on the economic and social interests which they have in common.

Cooperation with Bureau of Labor Statistics.—The committee on education referred to the work of the Bureau of Labor Statistics on post-war labor problems and to the existing cooperation between the Bureau and the A. F. of L., to make the work of the Bureau more useful to labor organizations. The convention endorsed the report of the committee and unanimously recommended that the national and international unions and State and city central bodies affiliated with the A. F. of L. keep in touch with the work of the Bureau of Labor Statistics and use its services as a medium to educate their membership in the field of post-war labor problems.

Committee on post-war problems.—So many resolutions and reports on post-war problems were presented to the convention that the delegates authorized the executive council to establish in the A. F. of L. a permanent committee on post-war labor problems. This committee will deal with such matters as peace objectives, post-war unemployment, national economic adjustment after the war, post-war financial aid to members of the armed forces, and the rehabilitation of disabled military men and women.

Officers and Convention City

President Green, Secretary-Treasurer Meany, and all 13 members of the executive council were unanimously reelected to their respective offices. The 1943 convention of the American Federation of Labor will be held in Boston, Mass.

ADMISSION OF WOMEN TO UNION MEMBERSHIP

WITH the entry of women into heavy industries which in peacetime employed only men, the question of women's status in these industries is receiving increasing attention. Recently a prominent union in Great Britain and one in the United States voted to give women membership in their organizations.

Boilermakers' Union

Following a referendum in which a majority of nearly two-thirds of those voting favored acceptance of women, the executive council of the International Brotherhood of Boilermakers admitted women to the union.[1] The total membership of the organization exceeds 90,000.[2] Since the number voting fell short of the total required to make a referendum binding, the executive council stated that its decision would be submitted to the next convention of the union for ratification. In the meantime, lodges were instructed to take in woman members on the same basis as men.

In acting, the council complied with requests of the Federal Government, undertaking to solve the problem created by the employment of thousands of women in shipyards and other war projects. About 5,000 women are already working at welding and other lighter jobs under the Boilermakers' jurisdiction, and thousands more are to be hired.

[1] Labor (Washington, D. C.), September 22, 1942.
[2] Report of the Executive Council of the American Federation of Labor to the Sixty-second Annual Convention, Toronto, October 1942.

British Engineering Union

A ballot recently concluded by the members of the British Amalgamated Engineering Union resulted in the grant of membership in the organization to women. The majority in favor of the step was 26,683, there having been 117,233 votes for the entry of women and 90,550 against. In an editorial on the result of the vote, the Journal of the union[3] states that the number of members voting on this question did not do justice to the importance of the issue. At least a majority of the total membership might have been expected to vote, but actually barely one-third of the members participated. Details of the balloting follow:

	In favor	*Against*
Home branches	101, 436	80, 326
Australia	13, 726	8, 257
South Africa	2, 071	1, 967
Total	117, 233	90, 550

The editorial states that the decision which the union made is of a serious nature and the act of admission does not dispose of the union problems that will arise owing to the inclusion of women. Force of circumstance made action necessary but "the union is making rather a leap in the dark." If women were to continue to be employed in engineering after the war as they are at present, the membership situation would be less difficult and it would be simpler to draft a workmanlike scheme covering union benefits in the wider sense. An acceptable scheme must be devised for women's benefits both in regard to conditions in the war emergency and from the standpoint of long-term policy. Expediency requires that the union reckon with the fact that women are now working in the industry in large numbers as skilled operatives, and it is strictly logical that they have union membership. No estimate may be made with any certainty as to what percentage of women will remain in the industry after the war, but the union believes it "cannot afford to lose sight of the fact that there is both a moral and a political pledge to the men who have left the industry to serve the nation in the fighting forces and other forms of war organization. They have a first claim upon the opportunities of employment in the industry when demobilization begins."

Entry of women into the industry is attributed to two entirely different causes; namely, the increased demand for war goods, and the need of filling jobs vacated by men who have been called to war duty. It is pointed out that there is an argument for the employment of women for the duration of hostilities only, in the same way that men are enlisted in the armed services. Stress is also placed on the interruptions in women's working life while they are raising families. All these factors are presented as an argument for lower union contributions by women to cover administrative costs of the benefits of association only, disregarding union benefits. During the experimental stage, it is suggested, women's contributions should be segregated. When it is proved that a women's section can be made self-supporting, the advisability of pooling the men's and women's sections can be considered.

[3] Amalgamated Engineering Union Journal (London), September 1942.

CHANGES IN LIVING COSTS IN LARGE CITIES, SEPTEMBER 15, 1942

LIVING costs for families of city workers rose 0.3 percent from August 15 to September 15, 1942. This represents a rise of 1.6 percent since mid-May, when the General Maximum Price Regulation became effective. Some further rise occurred after September 15, particularly in food costs, so that the Executive order of October 3 froze living costs at a level about 20 percent higher than in August 1939, the month before the war broke out in Europe. This compares with an increase of 30 percent in the same period of 1941.

Between mid-May and mid-September 1942, food costs rose over 4 percent, but rents and clothing costs declined. Prices of housefurnishings were higher and service charges had been advanced. Taken as a whole, the cost of goods and services under the control of the Office of Price Administration were below the level prevailing in mid-May when controls were established. However, commodities and services not subject to OPA control—largely foods and professional and personal services—had risen 4.7 percent between May 15 and September 15. Thus, although prices of foods under OPA control were at about the same level as in May, prices of uncontrolled foods had risen over 10 percent.

The following figures show changes from a month ago, 3 months ago, and from May, incorporating revisions of July and August figures.

	Aug. 15 to Sept. 15, 1942	*June 15 to Sept. 15, 1942*	*May 15 to Sept. 15, 1942*
All items	+0.3	+1.2	+1.6
Controlled	+.2	+.5	−.3
Uncontrolled	+.4	+2.9	+4.7
Food	+.4	+2.8	+4.1
Controlled	+.5	+1.2	+.2
Uncontrolled	+.3	+5.2	+10.2
Clothing	+.5	+.4	−.3
Rents	(1)	−.5	−1.7
Fuel, electricity, and ice	(1)	+1.1	+1.2
Housefurnishings	+.5	+1.1	+1.1
Miscellaneous	+.3	+.5	+.5

[1] No change.

In the month from mid-August to mid-September, the principal increases were in foodstuffs, with the exception of seasonal declines in some vegetables and fruits; and in clothing and housefurnishings, as new fall lines were introduced at prices higher than those prevailing last winter. Rents were comparatively stable, with slight declines reported in cities recently brought under OPA control.

Costs of fuel were higher in mid-September, particularly as compared with June levels, in part because of seasonal advances in coal.

Food costs.—Retail costs of food rose 0.4 percent between mid-August and mid-September. Price increases were reported for most important foods except fresh fruits and vegetables, which showed substantial seasonal decreases. However, eggs, dairy products, and meats rose in price by somewhat less than their usual August to September advance.

Prices of food not under direct control by the Office of Price Administration increased slightly more than 0.3 percent over mid-August and by mid-September were 10.2 percent higher than on May 12 and 34.6 percent above the 1935–39 average. The advance from August to September was much smaller than in previous months because of the substantial seasonal decline in prices of fresh fruits and vegetables, but prices of other foodstuffs not under control of the Office of Price Administration continued to increase sharply.

Prices of foods under Office of Price Administration control increased an average of 0.5 percent. Increases were reported for beef and veal (0.6 percent), pork (0.6 percent), and lamb (0.5 percent). In other years, advances in meat prices at this season have usually been much larger. Prices of canned fruits rose as the 1942 pack moved into the retail markets and ceilings were adjusted under the Office of Price Administration regulations of August 5.

Rent.—Although there was no change in rents for the large cities as a group, in 8 of the 21 cities in which quotations on rents are obtained monthly, rents declined slightly from August to September. Federal control of rents had been established before September 1 in 6 of these 8 cities. In Kansas City, where control was established on September 1, and in Houston, where there is as yet no Federal control, the average rental bill also declined slightly (0.2 percent in both cities) over the month.

During the quarter ending September 15, Federal control of rents was established in 17 of the 34 cities covered by the Bureau of Labor Statistics cost-of-living index. This action brought rents in 24 of these 34 cities under Federal control. In 13 of the 17 cities, rents dropped over the quarter. The largest declines occurred in Baltimore (6.2 percent), Jacksonville (4.8 percent), and Indianapolis (3.4 percent). In all but one city (Scranton) of the 10 in which controls have not yet been imposed, the net rental bill increased from mid-June to mid-September.

With the current cost-of-living survey, the Bureau of Labor Statistics inaugurated a new method of obtaining quotations for rents in 13 of the 34 cities covered. In these 13 cities, rental quotations were obtained directly from tenants, whereas in the past, the data have been obtained in large part from rental management agencies. This change was made in order to maintain the accuracy of the Bureau's rent data in the war situation, since many owners are now renting to tenants directly. Further, suburban areas around a number of the cities have for the first time been included in the reports.

Fuel, electricity, and ice.—There were general increases in fuel prices, both from August to September and for the entire quarter covered by this report. In all the Northern cities on the Atlantic coast in which fuel oil is used for heating the net prices in September were

higher than in June, as the advance early in July was not fully absorbed in the reduction ordered in August. Kerosene prices also rose throughout the East and coal prices were higher at the end of the quarter in 14 cities. The largest increases occurred in Cincinnati, Cleveland, Detroit, and Mobile. There was a large rise in the price of wood and sawdust in Portland, Oreg. The price of ice was generally stable, except for a rise in September in 4 cities and a decline in one. Utility rates also were stable during the quarter with the exception of advances in gas rates to domestic users in Boston and in Portland, Maine, as a result of increases in coal prices; and a reduction in Houston.

Clothing and housefurnishings.—Increases in clothing costs were quite general from August to September and in the quarter ending September 15, as fall and winter clothing appeared in retail stores at prices higher than those which prevailed last winter. Prices of most year-round goods remained unchanged, or declined because of special sales in a few cities.

Prices of men's topcoats and wool suits and of women's winter coats were from 6 to 14 percent higher than in December 1941. Women's percale dresses rose by 0.9 percent from August to September, bringing the total increase since December to 12 percent.

There was a net rise in the cost of housefurnishings both in the month and in the quarter, although there was considerable variation from city to city. In spite of the recent rise, prices on September 15 of most important housefurnishings were still below the May 15 level, before controls were established.

Prices of sheets dropped in some cities and increased in others. Blanket prices in September were higher in many cities than they

TABLE 1.—*Percent of Change in Cost of Specified Articles of Clothing and Housefurnishings Purchased by Wage Earners and Lower-Salaried Workers in Large Cities*

Article	Percent of change from—			
	Sept. 15, 1939, to Sept. 15, 1942	Dec. 15, 1941, to Sept. 15, 1942	May 15, 1942, to Sept. 15, 1942	Aug. 15, 1942, to Sept. 15, 1942
Men's clothing:				
Work trousers, cotton	+36.7	+11.4	−0.7	(1)
Overalls, cotton	+47.2	+11.9	−.8	(1)
Work shirts, cotton	+50.7	+12.3	−1.0	−0.3
Business shirts	+26.7	+12.4	−.2	(1)
Street shoes	+28.1	+9.9	(1)	+.1
Work shoes	+31.6	+10.0	−.4	−.4
Topcoats	+22.9	+11.6	+1.5	(2)
Wool suits	+31.1	+13.8	−.5	+.3
Women's clothing:				
Fur trimmed coats	+19.3	+6.5	(2)	(2)
Heavy plain coats	+13.6	+6.2	(2)	(2)
Wool dresses	+14.9	+2.2	(2)	(2)
Wash dresses, percale	+63.2	+12.1	−2.6	+.9
Panties	+23.8	+8.1	−1.4	(1)
Shoes	+13.9	+6.1	−.7	(1)
Housefurnishings:				
Living-room suites, inexpensive	+40.4	+2.7	−.3	+.3
Bedroom suites, medium priced	+24.4	+2.0	−.3	+.3
Rugs, Axminster	+23.9	+3.9	−.2	+.3
Sheets, 64 x 64	+53.0	+12.9	−.9	+2.8
Blankets, wool	+27.5	+8.3	(2)	(2)

[1] No change.
[2] Not priced in May.
[3] Not priced in August.

were last fall. Electric light bulbs were the only article for which consistent price decreases were reported this quarter throughout the country.

The percent of change in average prices paid for specified articles of clothing and housefurnishings by wage earners and lower-salaried workers in large cities of the United States combined is shown in table 1.

Miscellaneous costs.—From June to September there were large increases in service costs which constitute an important part of the miscellaneous expenses of city families of moderate means. Laundry services, dry cleaning, shoe repairs, and automobile repairs were placed under Federal control on July 1. However, professional and personal services, such as those rendered by barber shops and beauty parlors, and by physicians, surgeons, dentists, and hospitals are not under OPA control, nor are motion-picture admissions and newspaper prices; and these charges have continued to rise.

The growing shortage of doctors and nurses and the consequent pressure on the medical profession resulted in increases in fees to physicians, surgeons, dentists, and hospitals in 22 of the 34 cities covered by the index. In the last month of the quarter, large increases in miscellaneous costs occurred in Pittsburgh, where admissions to motion pictures and the price of newspapers were both increased, and in Denver and Philadelphia where barber-shop charges were increased.

TABLE 2.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items, July 15, 1942, Through September 15, 1942*

[Average 1935–39=100.0. Some indexes for July and August revised]

City and date	All items	Food	Clothing	Rent	Fuel, electricity, and ice	Housefurnishings	Miscellaneous
Average, large cities:							
July 15	117.0	[1] 124.6	125.3	108.0	106.3	122.8	111.1
August 15	117.5	[1] 126.1	125.2	108.0	106.2	123.0	111.1
September 15	117.8	[1] 126.6	125.8	108.0	106.2	123.6	111.4
Atlanta:							
July 15	(2)	122.7	(2)	(2)	110.6	(2)	(2)
August 15	(2)	124.9	(2)	(2)	110.6	(2)	(2)
September 15	117.3	125.9	125.7	106.5	110.6	119.5	112.3
Baltimore:							
July 15	118.5	128.3	125.9	106.9	104.8	127.7	111.2
August 15	119.1	129.6	125.1	106.7	104.6	127.6	112.3
September 15	119.8	131.2	125.7	106.7	104.6	127.6	112.3
Birmingham:							
July 15	117.2	121.2	126.6	120.4	99.5	119.2	111.6
August 15	118.8	126.1	125.5	120.4	99.5	119.2	111.6
September 15	118.8	125.3	126.8	120.4	99.5	119.1	112.0
Boston:							
July 15	115.8	122.6	121.8	104.9	120.7	118.1	109.5
August 15	115.3	122.5	121.7	104.9	116.6	118.2	109.2
September 15	116.2	124.4	122.5	105.1	116.3	118.3	109.4
Buffalo:							
July 15	120.9	127.8	127.2	114.6	103.6	126.1	118.8
August 15	120.5	127.6	127.2	114.6	103.6	125.3	117.5
September 15	120.5	127.6	127.2	114.6	103.6	125.1	117.4
Chicago:							
July 15	116.4	122.8	120.9	114.4	103.6	119.7	110.3
August 15	117.4	125.5	119.8	114.4	103.6	119.4	110.5
September 15	117.4	125.1	121.4	114.4	103.6	119.4	110.5
Cincinnati:							
July 15	116.7	124.2	128.1	104.9	103.1	125.7	110.6
August 15	117.4	125.8	128.3	104.9	102.4	125.3	111.5
September 15	118.0	126.9	130.0	105.1	102.5	125.3	111.3
Cleveland:							
July 15	119.2	126.7	127.2	115.5	112.1	123.6	110.4
August 15	118.9	125.8	127.2	115.3	112.1	123.4	110.5
September 15	119.6	127.3	128.4	115.1	112.1	123.9	110.5

See footnotes at end of table.

TABLE 2.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items, July 15, 1942, Through September 15, 1942*—Continued

[Average 1935–39=100.0. Some indexes for July and August revised]

City and date	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Denver:							
July 15	116.0	124.4	123.3	109.1	99.1	122.0	110.7
August 15	116.3	126.0	123.4	109.1	99.1	122.0	109.5
September 15	117.2	126.8	123.4	109.1	99.1	121.7	112.2
Detroit:							
July 15	118.5	125.0	125.1	114.9	106.9	120.8	113.3
August 15	118.0	123.7	125.1	114.7	106.9	120.6	113.3
September 15	118.4	124.7	125.1	114.5	107.3	120.3	113.5
Houston:							
July 15	116.7	128.2	126.7	108.6	92.7	122.5	109.6
August 15	117.6	130.0	126.7	109.0	92.8	122.5	110.5
September 15	118.0	130.8	126.7	108.8	92.9	122.2	111.0
Indianapolis:							
July 15	(2)	125.5	(2)	(2)	103.4	(2)	(2)
August 15	(2)	126.9	(2)	(2)	103.4	(2)	(2)
September 15	119.1	127.1	125.4	115.3	103.4	125.3	112.9
Jacksonville:							
July 15	(2)	133.1	(2)	(2)	109.5	(2)	(2)
August 15	(2)	134.9	(2)	(2)	109.6	(2)	(2)
September 15	121.5	134.2	125.2	112.2	109.6	121.3	113.5
Kansas City:							
July 15	113.8	118.3	122.5	108.6	106.0	117.0	110.5
August 15	114.9	121.2	122.4	108.7	106.0	116.4	111.1
September 15	114.7	120.7	123.5	108.5	106.0	116.9	110.6
Los Angeles:							
July 15	120.0	133.6	127.1	110.0	94.2	118.3	112.6
August 15	121.2	136.8	127.1	110.0	94.2	118.3	112.8
September 15	121.7	137.9	127.6	110.1	94.2	118.5	112.8
Manchester:							
July 15	(2)	126.0	(2)	(2)	124.4	(2)	(2)
August 15	(2)	125.2	(2)	(2)	120.5	(2)	(2)
September 15	120.2	126.8	127.5	107.8	119.5	120.9	111.9
Memphis:							
July 15	(2)	125.5	(2)	(2)	104.1	(2)	(2)
August 15	(2)	132.1	(2)	(2)	104.1	(2)	(2)
September 15	119.3	129.7	134.2	115.7	104.1	123.9	107.1
Milwaukee:							
July 15	(2)	122.0	(2)	(2)	103.9	(2)	(2)
August 15	(2)	121.7	(2)	(2)	103.9	(2)	(2)
September 15	115.3	121.0	122.4	108.3	103.9	124.3	111.6
Minneapolis:							
July 15	116.1	122.1	124.0	109.7	98.9	123.8	114.4
August 15	116.4	122.9	124.3	109.9	98.9	123.4	114.5
September 15	116.8	123.3	125.7	110.1	99.0	124.2	114.4
Mobile:							
July 15	(2)	130.0	(2)	(2)	102.0	(2)	(2)
August 15	(2)	131.4	(2)	(2)	102.1	(2)	(2)
September 15	120.9	133.9	127.0	114.9	102.8	121.4	111.6
New Orleans:							
July 15	(2)	133.2	(2)	(2)	96.2	(2)	(2)
August 15	(2)	135.6	(2)	(2)	96.3	(2)	(2)
September 15	121.6	135.9	129.3	107.1	96.5	126.7	110.2
New York:							
July 15	115.2	122.8	125.5	103.1	105.3	118.5	110.5
August 15	116.2	125.1	125.5	103.1	109.0	118.0	110.5
September 15	116.3	125.2	125.8	103.2	109.0	117.8	110.5
Norfolk:							
July 15	(2)	129.8	(2)	(2)	114.4	(2)	(2)
August 15	(2)	131.6	(2)	(2)	114.4	(2)	(2)
September 15	122.1	131.9	130.4	108.7	114.4	123.8	117.8
Philadelphia:							
July 15	116.3	122.9	126.2	106.7	103.7	121.7	111.5
August 15	116.7	124.0	126.1	106.7	103.7	121.8	111.2
September 15	116.9	123.9	126.1	106.7	103.7	122.0	112.6
Pittsburgh:							
July 15	116.6	124.1	126.8	107.6	108.4	122.2	110.3
August 15	116.7	125.0	126.7	107.5	108.4	121.3	109.6
September 15	117.5	125.9	128.2	107.3	108.4	122.1	111.1
Portland, Maine:							
July 15	(2)	124.4	(2)	(2)	117.3	(2)	(2)
August 15	(2)	125.8	(2)	(2)	112.9	(2)	(2)
September 15	118.0	125.8	123.7	106.0	114.0	121.0	114.2
Portland, Oregon:							
July 15	(2)	135.2	(2)	(2)	110.4	(2)	(2)
August 15	(2)	137.8	(2)	(2)	115.6	(2)	(2)
September 15	124.8	141.2	126.0	115.1	116.5	121.8	113.2

See footnotes at end of table.

TABLE 2.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items, July 15, 1942, Through September 15, 1942*—Continued

[Average 1935-39=100.0. Some indexes for July and August revised]

City and date	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Richmond:							
July 15	(2)	123.6	(2)	(2)	104.8	(2)	(2)
August 15	(2)	125.6	(2)	(2)	104.8	(2)	(2)
September 15	117.2	126.2	131.3	105.1	104.8	127.5	110.0
St. Louis:							
July 15	116.3	126.0	127.0	106.4	106.2	116.1	109.0
August 15	117.4	129.0	126.9	106.2	106.2	116.2	109.2
September 15	116.6	126.7	126.9	106.2	106.2	116.3	109.2
San Francisco:							
July 15	118.3	126.6	125.5	106.4	94.5	119.5	116.1
August 15	119.6	130.2	125.4	106.1	94.1	119.5	116.3
September 15	120.9	133.5	125.4	105.9	94.1	119.2	116.9
Savannah:							
July 15	121.6	132.0	127.0	114.9	108.7	120.1	114.1
August 15	121.6	132.3	127.0	114.9	108.8	120.1	113.6
September 15	122.1	133.3	127.5	114.9	108.8	119.9	114.0
Scranton:							
July 15	(2)	125.3	(2)	(2)	99.5	(2)	(2)
August 15	(2)	125.5	(2)	(2)	99.5	(2)	(2)
September 15	115.2	125.6	126.5	98.0	99.5	123.3	108.5
Seattle:							
July 15	119.7	130.9	126.9	110.9	100.6	119.3	114.1
August 15	121.7	136.1	128.9	110.1	100.6	119.5	114.1
September 15	122.7	137.3	128.9	109.8	100.5	119.6	116.5
Washington, D. C.:							
July 15	116.4	125.3	132.0	100.7	104.0	128.9	113.9
August 15	116.9	127.5	131.7	100.7	103.6	128.6	113.4
September 15	117.1	128.1	131.8	100.4	103.6	129.1	113.5

[1] Based on data for 51 cities.
[2] Monthly data not available.

TABLE 3.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, 1935–September 1942*

[Average 1935-39=100]

Year and month	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
Jan. 15	100.8	97.8	100.7	105.0	100.8	100.1	101.9
Feb. 15	100.8	97.9	100.4	105.1	100.6	100.4	101.9
Mar. 15	101.2	98.4	102.1	105.1	100.7	101.6	101.9
Apr. 15	102.2	100.6	102.4	105.4	101.0	102.4	102.4
May 15	102.9	102.1	102.8	105.7	101.1	103.2	102.5
June 15	104.6	105.9	103.3	105.8	101.4	105.3	103.3
July 15	105.3	106.7	104.8	106.1	102.3	107.4	103.7
Aug. 15	106.2	108.0	106.9	106.3	103.2	108.9	104.0
Sept. 15	108.1	110.7	110.8	106.8	103.7	112.0	105.0
Oct. 15	109.3	111.6	112.6	107.5	104.0	114.4	106.9
Nov. 15	110.2	113.1	113.8	107.8	104.0	115.6	107.4
Dec. 15	110.5	113.1	114.8	108.2	104.1	116.8	107.7
1942:							
Jan. 15	112.0	116.2	116.1	108.4	104.3	118.2	108.5
Feb. 15	112.9	116.8	119.0	108.6	104.4	119.7	109.4
Mar. 15	114.3	118.6	123.6	108.9	104.5	121.2	110.1
Apr. 15	115.1	119.6	126.5	109.2	104.3	121.9	110.6
May 15	116.0	121.6	126.2	109.9	104.9	122.2	110.9
June 15	116.4	123.2	125.3	108.5	105.0	122.3	110.9
July 15	117.0	124.6	125.3	108.0	106.3	122.8	111.1
Aug. 15	117.5	126.1	125.2	108.0	106.2	123.0	111.1
Sept. 15	117.8	126.6	125.8	108.0	106.2	123.6	111.4

ADJUSTMENT OF WAGES TO COST OF LIVING IN FINLAND [1]

THE Finnish Government has recently issued regulations providing for an immediate increase in wages, amounting on an average to two-thirds of the rise in the cost-of-living index since the outbreak of war. For the lowest wage classes, the increase is to correspond to the full amount of the rise in cost of living.

The regulations establish, as the base (100) for adjustment, the cost-of-living index for the period August 1930–July 1939 and the wage effective on September 1, 1939. Workers' wages must be raised immediately to a level 60 percent higher than the pre-war level. This represents an average increase corresponding to two-thirds of the increase in the cost-of-living index, which was 177 points in August 1942. Hereafter, whenever the cost-of-living index rises by 10 points above 160, a 4-percent increase in wages shall be given.

Employers' and workers' organizations are urged to negotiate agreements guaranteeing undisturbed continuation of economic activity and reasonable subsistence of workers.

The regulations do not apply to agricultural wages, for which separate regulations are to be issued.

COST OF LIVING IN ICELAND, 1941 AND 1942

IN Reykjavik, capital of Iceland, the cost of living rose by 83 percent from the period January–March 1939 to the month of July 1942, while the cost of food alone rose during the same interval by 123 percent, as shown in the accompanying table.

Indexes of Cost of Living and of Food in Reykjavik, Iceland, by Months, January 1941 to July 1942 [1]

[January–March 1939=100]

Date	All items		Food only	
	1941	1942	1941	1942
January 1	146	183	167	228
February 1	148	183	168	226
March 1	150	183	174	227
April 1	150	183	172	228
May 1	153	182	178	225
June 1	155	183	181	225
July 1	157	183	185	223
August 1	167	----	204	----
September 1	166	----	194	----
October 1	172	----	208	----
November 1	175	----	213	----
December 1	177	----	218	----

[1] Data are from Iceland, Statistical Bureau, Statistical Bulletin (Reykjavik), July 1942.

[1] Data are from report of H. F. Arthur Schoenfeld, United States Minister at Helsinki.

Wage and Hour Statistics

EARNINGS AND HOURS IN THE POCKET-CUTLERY INDUSTRY, JULY 1942 [1]

Summary

A RECENT survey by the Bureau of Labor Statistics reveals that average hourly earnings in the pocket-cutlery industry have risen steadily during the last 3 years. The straight-time hourly earnings of wage earners in this industry in July 1942 averaged 54.9 cents or approximately 13 cents higher than in August 1939.

Male workers earned much more per hour than female workers (60.6 compared to 43.5 cents) and also worked somewhat longer hours per week (46.2 as against 42.0 hours). As a result, the average gross weekly earnings of male workers ($30.23) exceeded those of female workers by $11.20.

Wide variations were found in the occupational averages for male workers, the range being from 42.2 cents for the group of watchmen, janitors, and sweepers to 74.2 cents for foremen. There was much more uniformity in the occupational average hourly earnings for female workers, which varied from 38.8 cents for etchers to 45.6 cents for sharpeners and hemming-machine operators.

Scope and Method of Survey

The data presented in this article were collected in connection with a wage dispute in the pocket-cutlery industry. The purpose of the Bureau's survey was to provide basic information on the characteristics of the labor force and the wage structure of the industry.

The survey included 14 plants. Although several other plants are also engaged in the manufacture of pocket cutlery, most of these plants manufactured items other than pocket cutlery as their principal products, and therefore did not come within the scope of the survey.

Five of the 14 plants studied produced butcher and kitchen knives as well as pocket cutlery. As the operations and method of manufacture of this type of cutlery are similar to those used in the manufacture of pocket cutlery—in some plants employees work on both types—the wage earners engaged in manufacturing butcher and kitchen knives were included in the study along with pocket-knife workers.

Only one-half of the companies which furnished current wage and hour data could supply complete information on the trend of hours and earnings over a previous 3-year period. Unfortunately, the largest firm was not among these plants. The seven which did supply this

[1] Prepared in the Bureau's Division of Wage Analysis by John F. Laciskey, under the supervision of Victor S. Baril.

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information, however, appear to be fairly representative of the industry. In the collection of current wage and hour data, in nearly every case a pay-roll period in July 1942 was selected as being most representative of the existing situation in the 14 plants covered.

All wage and hour data used in this study were obtained directly by trained field representatives of the Bureau from pay rolls and other pertinent records of the companies visited.

Characteristics of the Industry

Geographic location.—The manufacture of pocket cutlery in the United States began in the early part of the nineteenth century, when cutlers from Sheffield, England, immigrated to this country and settled principally in New England. Today, the industry still shows a high degree of concentration in New England and the Middle Atlantic States. Over 60 percent of the industry is in either Rhode Island or New York. The other plants are in Colorado (not included in survey), Connecticut, Massachusetts, New Jersey, and Pennsylvania.

Production trends.—According to the 1939 Census of Manufactures, the latest census available, the total value of all cutlery and edge tools produced in that year amounted to almost $60,000,000. Of this, pocket-knife production accounted for somewhat over $5,000,000, or almost 9 percent. This is about the same as the level of production in 1937 and is comparable to that in the years immediately preceding the depression; the $9,700,000 peak reached in 1919, however, has never been equaled since. The decline in the production value of pocket cutlery that has taken place since the early 1920's may be attributable partly to a price level lower than that immediately following the last war, but principally to a decrease in demand for pocket cutlery brought about by a change in occupational and recreational trends, and substitution of other products. The market for high-grade forged blade knives, moreover, has been giving way in the last decade to a demand for less-expensive knives with blanked blades.

The war has introduced two still more important considerations into the current production pattern—enforced curtailment of the output of pocket cutlery because of the prohibition of the use of iron and steel for such purposes by conservation and limitation orders, and production of war material by pocket-cutlery plants. At the time the survey was made, several reporting firms were producing articles on war contracts. One firm not surveyed was also engaged in war production, and another was in the process of converting its facilities preparatory to undertaking war work. As yet, however, war production does not constitute a large proportion of total production throughout the industry as a whole.

Labor force.—Almost two-thirds of the labor force is composed of males; and of the 1,799 wage earners in the 14 pocket-cutlery plants surveyed all were white, with the exception of two Negro employees reported by one plant.

The grinding, polishing, and buffing of blades, springs, and hafts, and the heavier punch-press work, are usually performed by men. Women, on the other hand, are most frequently found performing the lighter tasks or those requiring manual dexterity, such as inspecting and wiping, wrapping and packing, assembling, riveting, drilling, etc.

Unionization has made comparatively little progress in the pocket-cutlery industry. Only three plants, employing about three-tenths of

the workers in the 14 plants studied, reported having agreements with unions. Two of these were affiliated with the American Federation of Labor, and the other with the Congress of Industrial Organizations.

Methods of wage payment.—Over four-fifths of the workers in the 14 plants surveyed were paid on a time basis. In 4 plants this was the only method of wage payment and in another hourly rates were supplemented by an attendance bonus. Although incentive plans were found in 9 plants, the proportion of workers in each plant to which such plans apply varied widely—from 4 percent in 3 plants to over 50 percent in 3 other plants.

Minimum entrance rates of pay for male workers in the pocket-cutlery industry ranged from 30 cents to 45 cents. Only two plants, however, paid the lowest rate. Half of the 14 plants surveyed offered a 35-cent entrance rate, while three paid 40 cents, one 44 cents, and one 45 cents. The range in entrance rates of pay for female workers was from 30 cents to 40 cents. Six plants paid the lowest rate, one paid 34 cents, and four paid 35 cents. The top limit of 40 cents was paid by three plants.

Overtime was paid at the rate of time and a half after 40 hours per week in 10 plants and also after 8 hours per day in 4 of these. Four of the 10 plants paid time and a half for work on Saturday. Sunday and holiday work was paid for at the rate of time and a half in 3 plants and at double rates in 1 plant.

At the time the survey was made only one plant was operating more than one shift. This plant ran an evening as well as a night shift, in order to fulfill war contracts; for both of these a differential of 3 cents per hour was paid.

Employment, Hours, and Earnings

TREND, 1939 TO 1942

As was previously stated, the complete information on the trend of employment, hours, and earnings from 1939 to 1942 was available in only half of the 14 plants surveyed. As is shown in table 1 below, average hourly earnings showed a steady increase from 44.4 cents in August 1939 to 60.7 cents in June 1942, the greatest increase—3.8 cents—taking place between March and June 1942. The only recession from the upward swing occurred in July 1942, when the average dropped nearly 1 cent.

TABLE 1.—*Employment, Average Hourly Earnings, Weekly Hours, and Weekly Earnings in Seven Pocket-Cutlery Plants, August 1939 to July 1942*

Year and month	Total wage earners	Average hourly earnings [1]	Average weekly hours	Average weekly earnings [1]
August 1939	1,030	$0.444	37.9	$16.80
June 1940	1,086	.472	46.3	21.84
September 1940	1,121	.477	41.1	19.59
December 1940	1,235	.482	44.5	21.46
March 1941	1,279	.492	42.7	21.00
June 1941	1,257	.517	44.1	22.81
September 1941	1,308	.531	45.0	23.87
December 1941	1,380	.560	46.2	25.87
March 1942	1,325	.569	45.3	25.74
June 1942	1,244	.607	45.2	27.40
July 1942	1,197	.598	44.9	26.89

[1] The average earnings are based on gross earnings, including premium shift differential and overtime payments.

The average hourly earnings presented in table 1 are based on gross earnings which include premium overtime payments. It is evident that during the last 3 years overtime work was of considerable importance in the pocket-cutlery industry. The average workweek, now 7 hours longer than it was 3 years ago, has fluctuated widely. In August 1939 the average workweek consisted of 37.9 hours. Ten months later, the weekly average had increased to 46.3 hours (and hourly earnings had advanced 2.8 cents). Since that time the average workweek has varied in length from 41.1 hours in September 1940 to 46.2 hours in December 1941. A gradual decline in the average, amounting in all to 1.3 hours, has taken place since the close of the 1941 calendar year.

Actual average straight-time hourly earnings over the 3-year period are not available. A rough estimate of such earnings, however, indicates an increase of approximately 13 cents between August 1939 and the peak reached in June 1942. This compares with the 16.3-cent increase shown when premium overtime earnings are included.

Weekly earnings in the seven comparable plants reflect the increases in the basic rates of pay and in weekly hours. As a result, weekly earnings in July 1942 ($26.89) were 60 percent higher than those received 3 years previously.

HOURLY EARNINGS IN JULY 1942

Straight-time hourly earnings of the 1,799 wage earners covered in the 14 plants surveyed averaged 54.9 cents in July 1942 (table 2).[2] Earnings varied widely among individual workers, ranging from 30 cents to over $1.40 an hour. Despite the wide differences between these extremes, more than half of the workers (50.9 percent) showed earnings that were within the 15-cent range of 40 to 55 cents. Approximately one-eighth (12 percent) of all workers earned less than 40 cents per hour, and 1.9 percent earned exactly 30 cents. In contrast, slightly more than one-eighth (13.8 percent) earned 75 cents or more per hour, and 1.2 percent as much as $1 an hour.

TABLE 2.—*Percentage Distribution of Wage Earners in Pocket-Cutlery Industry, by Average Hourly Earnings and Sex, July 1942*

Average hourly earnings (in cents)	Total	Male	Female	Average hourly earnings (in cents)	Total	Male	Female
Exactly 30.0	1.9	0.8	3.8	75.0 and under 80.0	3.9	6.1	0.2
30.1 and under 35.0	2.3	.3	5.8	80.0 and under 85.0	3.2	5.1	.....
35.0 and under 40.0	7.7	3.7	14.7	85.0 and under 90.0	3.2	5.0	.....
Exactly 40.0	9.7	4.4	19.0	90.0 and under 95.0	1.2	1.9	.....
40.1 and under 45.0	12.9	7.2	23.1	95.0 and under 100.0	1.1	1.7	.....
45.0 and under 50.0	15.8	15.8	15.8	100.0 and over	1.2	1.8	.....
50.0 and under 55.0	12.5	13.7	10.4				
55.0 and under 60.0	6.5	8.3	3.3	Total	100.0	100.0	100.0
60.0 and under 65.0	6.6	8.8	2.6				
65.0 and under 70.0	5.5	7.9	1.3	Number of wage earners	1,799	1,144	655
70.0 and under 75.0	4.8	7.5	.....	Average hourly earnings	$0.549	$0.606	$0.435

Male workers, who constitute about two-thirds of the labor force, averaged 60.6 cents an hour. Although the earnings of the men showed considerable variation, nearly 55 percent had hourly earnings from 45 to 70 cents an hour. Less than 5 percent earned under 40 cents, and less than 1 percent earned as low as 30 cents an hour.

[2] When premium overtime payments are included, the average hourly earnings for all workers amount to 58.6 cents; for males, 65.5 cents; and for females, 45.3 cents.

The female workers averaged 43.5 cents an hour, or about 17 cents less than the males. The earnings of women were concentrated in the lower brackets, more than four-fifths of them having earnings below 50 cents an hour. Nearly one-fourth received less than 40 cents an hour, approximately one-fifth earned exactly 40 cents, and slightly less than two-fifths had hourly earnings from 40.1 to 50 cents. Only one woman worker earned more than 70 cents.

Average hourly earnings varied considerably among the 14 plants surveyed, the range in plant average earnings being from 45.4 cents to 58.3 cents. On the whole, earnings were lower in the smaller plants than in the large ones. For example, all 5 plants employing fewer than 100 workers had plant averages below the general average for all 14 plants, while only 2 of the 9 plants with 100 or more workers had earnings below that figure. There appears to be no direct correlation, however, between hourly earnings and geographic location or size of community.

OCCUPATIONAL VARIATIONS

Table 3 shows the average straight-time hourly earnings, weekly hours, and total weekly earnings (including premium overtime payments) of the various occupational groups in the pocket-cutlery industry.

For the males, the occupational averages ranged from 42.2 cents for watchmen, janitors, and sweepers combined to 74.2 cents for foremen.

TABLE 3.—*Average Straight-Time Hourly Earnings, Weekly Hours, and Weekly Earnings in Pocket-Cutlery Industry, by Occupation and Sex, July 1942*

Occupation and sex	Number of wage earners	Average straight-time hourly earnings	Average weekly hours	Average total weekly earnings [1]
All occupations	1,799	$0.549	44.7	$26.15
Males	1,144	.606	46.2	30.23
Assemblers	65	.502	44.4	23.83
Bunchers or wirers	7	.427	42.8	19.26
Cutlers, including repairmen and sample workers	77	.620	47.9	32.36
Double-header operators	54	.692	43.1	31.78
Drill-press operators	26	.469	45.1	22.60
Foremen, working	93	.742	48.6	39.57
Grinders, hand	100	.624	45.8	30.73
Heat treaters	24	.586	46.3	29.50
Hemming grinding-machine operators	38	.545	47.7	28.37
Machine repairmen	13	.719	53.1	42.92
Machinists and general maintenance men	56	.707	46.4	35.63
Polishers and buffers, hand, including hafters	295	.615	45.8	30.45
Polishers and buffers, machine	28	.660	47.6	34.00
Punch-press operators	81	.533	45.6	25.97
Riveters, including pin clippers	16	.571	46.6	28.48
Straighteners, blade and spring	7	.500	45.6	24.26
Truckers, hand, including work distributors	15	.445	43.1	20.57
Watchmen, janitors, and sweepers	19	.422	52.1	24.55
Miscellaneous production workers	97	.561	44.5	26.64
Miscellaneous nonproduction workers	33	.578	48.1	30.10
Females	655	.435	42.0	19.03
Assemblers	114	.431	41.1	18.23
Bunchers or wirers	33	.422	43.0	19.05
Drill-press operators	54	.446	43.2	20.30
Etchers	16	.388	39.7	15.68
Hemming grinding-machine operators	44	.456	43.7	20.92
Inspectors, including wipers	106	.436	43.3	19.94
Punch-press operators	53	.446	42.3	19.54
Riveters, including pin clippers	47	.447	41.0	18.92
Sharpeners	45	.456	42.2	20.15
Wrappers and packers	39	.407	40.1	16.97
Miscellaneous production workers	79	.411	40.3	17.21
Miscellaneous nonproduction workers	25	.454	43.9	20.85

[1] Averages are based on gross earnings, including premium overtime earnings.

However, examination of the data in this table reveals that nearly all male workers in productive occupations averaged between 50 and 70 cents an hour. Drill-press operators, and bunchers or wirers were the only wage earners doing production work who earned an average of less than 50 cents an hour. Double-header operators showed an average of 69.2 cents, the highest straight-time hourly earnings rate for production workers. The two most important occupations numerically, hand polishers and buffers, and hand grinders, both showed averages in excess of 60 cents an hour.

All 12 occupational averages shown for woman workers were found within a range of less than 7 cents. The lowest earnings, 38.8 cents, were for etchers and the highest, 45.6 cents, were for sharpeners and for hemming grinding-machine operators. About one-third of all woman workers were assemblers or inspectors. The average hourly earnings for workers in these two occupations followed very closely the general average for all female workers.

Much of the difference in earnings in favor of male workers is due to the concentration of these workers in the more skilled and better-paying occupations. For example, one-fourth of the male workers were hand polishers, buffers, and hafters, while 8 percent were hand grinders, and approximately the same number were working foremen. All three of these occupations averaged over 60 cents an hour. In the six reasonably comparable occupational groups for which averages are presented for both male and female workers the former enjoyed a slight advantage in 2 (0.5 cent for bunchers or wirers, and 2.3 cents for drill-press operators) and a substantial advantage in 4 (7.1 cents for assemblers, 8.7 cents for punch-press operators, 8.9 cents for hemming grinding-machine operators, and 12.4 cents for riveters and pin clippers).

Actual weekly hours of all workers in the pocket-cutlery industry averaged 44.7 [3] in July 1942. Male wage earners worked a somewhat longer week than did female wage earners, the respective averages being 46.2 and 42.0. The average weekly hours of male wage earners ranged from 42.8 for bunchers or wirers to 53.1 for machine repairmen. For females, the average week ranged from 39.7 hours for etchers to 43.9 hours for miscellaneous nonproduction workers.

The average total weekly earnings, including premium overtime, for all workers in this industry amounted to $26.15. The average for male workers was $30.23 as compared with $19.03 for female workers. On an occupational basis, the average weekly earnings for men ranged from $19.26 for bunchers and wirers to $42.92 for machine repairmen. The former occupation had the second lowest average hourly earnings rate and the shortest average workweek, while the latter was one of the highest-paid occupational groups and had the longest average workweek. Hand polishers and buffers, the largest occupational group, earned $30.45, an amount only slightly larger than the total average weekly earnings for males of $30.23.

The variation in earnings was not so great for the women. It amounted to $5.24, the range being from $15.68 for etchers to $20.92 for hemming grinding-machine operators. As with male wage earners, the lower-paid occupational grouping had the shorter workweek, while the higher-paid occupational group also had the longest average workweek.

[3] This compares with the average of 44.9 hours in the 7 plants for which the 1939 to 1942 trend was available.

EARNINGS IN MANUFACTURE OF PRESSURE AND VACUUM GAUGES, AUGUST 1942 [1]

Summary

FIRST-SHIFT workers engaged in the manufacture of pressure gauges in August 1942 earned an average of 76.8 cents per hour. This fact is revealed by a Bureau of Labor Statistics study covering key occupations in 11 gauge-manufacturing plants and 3 contract shops engaged in the printing and engraving of gauges. Of the occupations studied, the highest paid was that of first-class machinists, who averaged $1.193, and the lowest paid the group of laborers and general-utility workers, who earned 53.5 cents. Gauge assemblers, the most numerous group, averaged 72.7 cents.

Purpose and Scope of Survey

A survey of wages in establishments manufacturing pressure and vacuum gauges was recently made by the Bureau of Labor Statistics for the purpose of providing a factual basis for the settlement, through collective bargaining, of a wage dispute in an important manufacturing establishment. As the data assembled in the survey concern wages paid in the manufacture of instruments vitally important in war production and cover a substantial number of workers in a representative group of the producing establishments, they are summarized here for general use.

The survey covered 3,259 workers. Eleven gauge manufacturers were included, 8 of them being engaged principally in the manufacture of indicating pressure and vacuum gauges and 3 being important producers of gauges although primarily engaged in the manufacture of other products. As the survey was made for a special purpose, it was restricted to workers producing indicating pressure and vacuum gauges, the type manufactured by the plant in which the dispute occurred. In particular, workers on recording gauges and meters were excluded. The establishments covered manufacture a substantial proportion of all indicating pressure and vacuum gauges.

Several of the gauge manufacturers have the etching, printing, and engraving on their products done in contract shops. For this reason, information was obtained regarding the wages paid for these operations in three such contract shops. Much of the work in these printing and engraving shops is complex and commands especially high rates of pay. However, only those workers who were engaged in the comparatively simple types of work required on gauges were included in the study.

Hourly Earnings in Selected Occupations

The survey covered an extensive but not all-inclusive list of production and maintenance occupations. These include the major occupational groups and account for a large proportion of the total employment in the typical plant. To avoid the problem of shift-differential

[1] Prepared in the Division of Wage Analysis by Edward B. Morris, under the supervision of Frances M. Jones.

pay, the study was confined to workers employed on the first daylight shift. Premium payments for overtime, Sunday and holiday work were in all cases excluded from the earnings data. The figures given, therefore, represent occupational earnings on a straight-time basis. The data relate to a pay period in early August 1942.

As indicated in the accompanying table, the average rate on a straight-time basis for all of the daylight-shift workers studied amounted to 76.8 cents an hour. This average covers basic hourly rates of time workers and the average hourly earnings (exclusive of premium pay for overtime) for piece and bonus workers in each of the occupational groups selected for study.

For the individual occupational groups, average earnings ranged from 53.5 cents an hour for laborers and general-utility workers to $1.193 for first-class machinists. In part, these differences reflect variations in the proportion of woman workers; roughly one-sixth of all workers studied were women. Earnings averaged more than $1.00 an hour in 5 of the 35 occupations, but these occupations contained only 6 percent of the workers covered. Over 75 percent of the workers were in occupations for which average wages were within 10 cents of the 76.8-cent average for all occupations. Gauge assemblers, the occupation numerically most important, had average earnings of 72.7 cents an hour.

Wide differences in wage levels among the various plants were found to exist. For example, the earnings of gauge assemblers averaged only 36.3 cents an hour in one of the lowest-wage plants, but 88.7 cents in one of the highest-wage plants surveyed. Similar variation in averages from plant to plant was found in many of the other occupations. Various factors are responsible for these interplant differences in occupational wage levels. Perhaps the most important factors are the differences in size of plant, size of the community in which the plants are situated, and methods of wage payment.

The plants surveyed were in Massachusetts, Connecticut, New York, Pennsylvania, Illinois, Iowa, and Wisconsin. About two-thirds of the workers covered were employed in small cities and towns; the remaining third were found in the major metropolitan areas. Large plants (i. e., with over 1,000 workers each) account for about three-fourths of the employees included in the survey. Contracts with labor unions were found in 3 of the larger plants among the 11 establishments manufacturing gauges.

Hourly and weekly rates were paid to 46.7 percent of the workers in the selected occupations, and 53.3 percent were compensated on a piece-work basis. The latter figure includes a negligible proportion of bonus workers. Piece rates were used in 6 of the 11 gauge plants and were applied to 75 percent or more of the workers in the occupations of gauge assemblers, subassemblers, production-machine operators, movement makers and assemblers, automatic-screw-machine operators, and solderers and dip tinners.

Overtime and Extra Shifts

The usual practice with regard to overtime work in these plants was to pay time and a half after 8 hours a day and 40 hours a week. This practice was followed by 8 of the companies; the other 3 paid time and a half only after 40 hours a week. Four of the companies paid time

and a half for Saturday work, and four paid time and a half or double time for work on Sundays and holidays.

Extra shifts were employed in 7 of the plants. Three of these paid no extra rate for second or third shift work and four paid a differential of 5 cents or 5 percent of the first-shift rates. The size of the labor force employed on the extra shifts was only a small fraction of that utilized on the principal shift.

Straight-Time Average Hourly Earnings of First-Shift Workers Engaged in Manufacture of Pressure Gauges, August 1942

Occupation	Number of plants	Number of workers	Average hourly earnings
Total, selected occupations	[1] 14	3,259	$0.768
Gauge manufacture:			
Assemblers, gauge	11	626	.727
Assemblers, subassembly	4	100	.654
Calibrators, aircraft gauges	6	53	.773
Die set-up men, punch press	6	7	.919
Electricians, first class	4	5	.986
Electroplaters	8	33	.885
Electroplaters' helpers	5	22	.611
Firemen	4	9	.777
Heat treaters, all-round, first class	4	5	.926
Inspectors, parts and gauges, first class	6	46	.798
Inspectors, parts and gauges, second class	6	96	.684
Instrument makers, all-round	8	21	.951
Laborers and general-utility workers	9	213	.535
Laborers, foundry	4	38	.637
Lay-out and set-up men	7	35	.929
Machine operators, production	11	312	.752
Machine operators, semiautomatic	10	299	.863
Machinists, first class	10	63	1.193
Molders, hand and machine, and coremakers, hand	4	46	1.063
Movement makers and assemblers	5	171	.808
Painters and lacquerers, spray	11	44	.848
Polishers and buffers, including finish grinders	8	37	1.047
Screw-machine operators, automatic	5	33	1.124
Solderers, hand and machine, and dip tinners	9	131	.863
Spring makers, hand and machine	10	62	.764
Stockroom clerks and order assemblers	9	53	.679
Testers, commercial gauges	9	175	.734
Tool and die makers, first class	8	25	1.173
Watchmen	4	26	.575
Wrappers and packers	9	92	.683
Miscellaneous workers	11	[2] 311	.709
Printing and engraving:			
Compositors	5	8	.875
Etchers, metal	6	23	.841
Photoengravers	4	12	.756
Printers, gauge face	6	27	.976

[1] Includes 11 regular gauge manufacturers and 3 shops engaged in the etching, printing, and engraving of gauges under contract.

[2] Includes occupations in plants too few in number to permit presentation of individual averages. Also includes 47 maintenance workers in 1 plant for whom separate occupational data were not reported.

EARNINGS AND HOURS IN BOOK AND JOB PRINTING, JANUARY 1942 [1]

PART 2.—HOURLY EARNINGS BY OCCUPATION

Summary

IN THE book and job printing industry, as in most other industries, pronounced differences in the skill requirements of the labor force are reflected in broad variance in occupational earnings. This is revealed in the returns from a mail questionnaire survey by the Bureau of Labor Statistics covering almost 4,000 companies in 7 branches of the industry.

The survey revealed a range in occupational average hourly earnings for males in the larger plants from 36.9 cents for delivery and errand boys to $1.667 for foremen in the plate department. Earnings of male hand compositors, a key craft in the industry, amounted to $1.185 an hour in large plants and to 91.6 cents in the small shops. Male cylinder pressmen in large plants averaged $1.161 an hour; offset pressmen, $1.258; and rotary and web-rotary pressmen, $1.351. Male platen pressmen earned an hourly average of 94.3 cents in large plants as against 76.4 cents in small shops. Woman hand workers in binderies, one of the lower-paid occupations, earned an average of 45.9 cents an hour in large plants, exactly 2 cents an hour more than comparable workers in small establishments.

Workers in the industry were employed an average of 40.1 hours, male workers averaging 40.6 hours and woman workers, 38.6. Hours worked did not vary notably among branches of the industry, the range being from 38.1 hours in the gravure branch to 41.5 hours in the lithography and books branches.

As a group, wage earners in the industry earned an average of $32.66 a week. The earnings of male workers, $36.76, were almost double those of woman workers. The wide variations in weekly earnings found among branches of the industry and among the individual occupations were due more to differences in hourly earnings than to differences in weekly hours, as fluctuations in hours of work were not marked.

Occupational Structure

Craftsmanship is still dominant in the printing industry. Although technological improvements have increased the effectiveness of semiskilled and unskilled workers, the skilled craftsman remains the typical printing-trades worker. Unions in the industry are organized primarily along craft lines, and the wage minima which the unions have established through collective agreements have had much to do with the wages prevailing in individual occupations.

The various branches of the printing industry display considerable diversity in occupational structure. This is apparent from table 1, in which the workers in the larger plants (21 or more wage earners) are segregated by branch of the industry, department, occupation, and

[1] Prepared in the Bureau's Division of Wage Analysis by Everette B. Harris, with the assistance of Woodrow C. Linn. The study was conducted under the supervision of Victor S. Baril. An earlier article, which appeared in the October 1942 issue of the Monthly Labor Review, presented distributions of the workers in the industry by average hourly earnings and discussed several major factors making for wage differences.

sex. As would be expected, the composing department is of greatest relative importance in commercial printing, books, periodicals, and small newspapers. Only the lithography and gravure branches employ substantial proportions of their workers in the plate department. Most workers in bookbinding establishments are, of course, in the bindery department. Although, in the interest of brevity, much of the discussion of occupations throughout this article refers to the industry as a whole, such differences from branch to branch should be kept clearly in mind.

TABLE 1.—*Average Hourly Earnings and Number of Wage Earners in Printing Plants Employing 21 or More Wage Earners, by Occupation, Branch, and Sex, 1942*

AVERAGE HOURLY EARNINGS

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers	Gravure [1]
Males								
Total, males	$0.916	$0.921	$0.869	$0.938	$0.956	$0.734	$0.943	$1.249
Composing department:								
All-round printers	.818	.907	(2)			(2)		(2)
Apprentices	.619	.603	.575	.625	.668	(2)	.523	
Compositors, hand	1.185	1.165	1.159	1.276	1.206	1.041	1.044	(2)
Copyholders	.511	.524	(2)	(2)	.450			
Foremen	1.361	1.416	1.278	1.334	1.413	(2)	1.325	
Linotype operators	1.212	1.225	1.086	1.295	1.188	(2)	1.090	
Ludlow operators	.931	(2)	(2)		(2)	(2)		
Machinists	1.291	1.235	(2)	1.317	1.338		(2)	
Monotype casters	1.136	1.144	(2)	1.121	1.198			
Monotype keyboard operators	1.246	1.209	1.224	1.359	1.255		(2)	
Proof-press operators	1.018	.821	(2)	(2)	1.159			
Proofreaders	1.151	1.100	1.051	1.316	1.120		(2)	
Stonemen	1.112	1.124	1.237	1.113	1.055	(2)	(2)	
Other workers	.523	.530	.538	.498	.551		(2)	
Electrotype and stereotype department:								
Apprentices	.702	.684	(2)	(2)	.734		(2)	
Electrotypers	1.459	1.451	(2)	1.458	1.487			
Foremen	1.592	1.443		(2)	(2)		(2)	
Stereotypers	1.222	1.184	(2)	1.168	1.540		1.266	
Other workers	.725	.819	(2)	.613	.739		(2)	
Plate department:								
Apprentices	.715	.610	.675	.650	(2)		(2)	1.246
Artists, retouchers, and re-etchers	1.454	1.169	1.369	1.581	1.706	(2)		2.129
Engravers	1.432	1.378	1.235	(2)	1.880		(2)	(2)
Finishers	1.460	1.522	1.249	(2)	(2)			
Foremen	1.667	1.602	1.565	(2)	(2)		(2)	(2)
Grainers	.841	(2)	.817	(2)				
Photographers and cameramen	1.372	1.185	1.275	1.756	2.005		(2)	2.043
Plate makers	1.180	1.055	1.151	1.443	(2)		(2)	(2)
Transferrers and provers	1.291	1.329	1.210	1.568	(2)			2.268
Other workers	.688	.586	.612	(2)	.846	(2)		1.198
Press department:								
Apprentices	.721	.635	.684	.908	.851	(2)	(2)	.811
Foremen	1.485	1.494	1.500	1.437	1.548	(2)	(2)	(2)
Machinists	1.106	1.150	(2)	1.044	(2)			
Multilith operators	.695	(2)	.793		.622			
Press assistants and helpers	.871	.805	.685	1.040	1.009	(2)	.562	1.387
Press feeders	.879	.857	.757	1.054	.924	.672	(2)	(2)
Press washers	.537	.589	.516	.579	.491			
Pressmen, cylinder	1.161	1.126	1.131	1.254	1.194	.984	1.006	(2)
Pressmen, gravure	1.584		(2)	(2)	1.512			1.623
Pressmen, offset	1.258	1.123	1.296	1.407	(2)		(2)	
Pressmen, platen	.943	.968	.855	1.024	.836	.814	(2)	(2)
Pressmen, rotary and web-rotary	1.351	1.202	1.076	1.676	1.554		1.183	
Overlay cutters	1.102	(2)	(2)	1.063	(2)			
Other workers	.649	.610	.624	.676	.610	.406	(2)	.756
Bindery department:								
Apprentices	.589	.594	.601	.698	.597	.493	(2)	
Assistants and helpers	.504	.496	.504	.555	.474	.450		
Folding-machine operators	.981	.895	.862	1.131	.948	.972	(2)	(2)
Foremen	1.127	1.154	1.115	1.257	1.162	.972	(2)	
Hand workers	.639	.628	.606	.634	.598	.683	(2)	(2)
Machine feeders	.690	.732	.680	.722	.725	.588		
Machine operators	.947	.874	.830	1.064	1.068	.874	(2)	
Machinists	1.040	(2)	(2)	1.100	(2)	.952		
Power cutters	.985	.982	.974	1.073	.983	.947	(2)	(2)
Ruling-machine operators	.981	1.028	.934	(2)	(2)	.922		

See footnotes at end of table.

TABLE 1.—*Average Hourly Earnings and Number of Wage Earners in Printing Plants Employing 21 or More Wage Earners, by Occupation, Branch, and Sex, 1942*—Con.

AVERAGE HOURLY EARNINGS—Continued

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers	Gravure
Males—Continued								
Shipping and stock department:								
Delivery and errand boys	$0.369	$0.376	$0.352	$0.363	$0.392	$0.375	$0.339	------
Foremen	1.091	1.181	(2)	(2)	1.083	(2)	(2)	------
Mailers	.779	.894	.528	.706	.757	1.211	.870	------
Shipping clerks	.755	.770	.737	.766	.778	.720	(2)	(2)
Stock clerks	.679	.708	.638	.674	.698	(2)	(2)	(2)
Truck drivers	.714	.685	.764	.640	.743	.764	(2)	(2)
Other workers	.550	.532	.515	.565	.613	.510	(2)	$0.804
Maintenance department:								
Firemen	.756	.812	.640	.919	.698	(2)	------	------
Janitors, watchmen, and service workers	.506	.496	.494	.556	.516	.458	.481	.536
Other semiskilled workers	.723	.707	.702	.742	.791	(2)	(2)	------
Other unskilled workers	.562	.537	.512	.579	.597	(2)	(2)	(2)
Skilled workers	1.148	1.126	1.079	1.164	1.142	1.164	------	1.661
Miscellaneous:								
Clerks, plant	.691	.862	.644	.641	.863	(2)	------	------
Handicapped workers and learners	.537	.604	(2)	------	(2)	.361	(2)	(2)
Females								
Total, females	.494	.494	.475	.506	.520	.474	.557	.570
Composing department:								
Apprentices	.497	.536	(2)	.446	(2)	------	------	------
Compositors, hand and machine	.814	.870	(2)	.766	.874	(2)	(2)	------
Proofreaders	.750	.792	.598	.810	.694	------	(2)	(2)
Other workers	.463	.472	.568	.451	.453	------	(2)	------
Plate department: All workers	.561	.607	.532	(2)	(2)	------	------	------
Press department:								
Apprentices	.462	.454	(2)	------	(2)	------	------	------
Press operators and feeders	.565	.540	.520	(2)	.840	(2)	(2)	------
Other workers	.526	.502	.547	(2)	(2)	------	------	------
Bindery department:								
Apprentices	.426	.441	.398	.418	.386	.385	------	------
Forewomen	.649	.620	.717	.656	(2)	.667	------	------
Hand workers	.459	.457	.451	.466	.460	.464	.460	(2)
Machine operators and feeders	.512	.504	.492	.527	.540	.504	(2)	(2)
Shipping and stock department:								
Mailers	.444	.534	.507	.388	.420	(2)	------	------
Other workers	.482	.514	.479	.392	.489	(2)	(2)	------
Maintenance department: Maintenance workers	.482	.474	(2)	.469	.517	(2)	------	------
Miscellaneous:								
Clerks, plant	.499	.518	.507	.481	.484	(2)	------	------
Handicapped workers and learners	.359	(2)	------	(2)	(2)	.340	------	(2)

NUMBER OF WORKERS

Males								
Total, males	28,117	9,874	5,417	5,075	5,228	1,540	484	499
Composing department:								
All-round printers	15	10	2	------	------	2	------	1
Apprentices	443	200	37	61	126	2	17	------
Compositors, hand	2,096	1,034	187	324	457	12	80	2
Copyholders	48	20	2	5	21	------	------	------
Foremen	143	76	11	20	20	5	11	------
Linotype operators	1,363	504	51	306	371	6	125	------
Ludlow operators	18	7	4	------	5	2	------	------
Machinists	85	26	4	25	22	------	8	------
Monotype casters	55	29	4	12	10	------	------	------
Monotype keyboard operators	158	80	18	37	22	------	1	------
Proof-press operators	30	11	2	5	12	------	------	------
Proofreaders	273	97	25	52	94	------	5	------
Stonemen	305	137	26	79	58	2	3	------
Other workers	393	116	34	142	94	------	7	------
Electrotype and stereotype department:								
Apprentices	33	17	1	4	10	------	1	------
Electrotypers	207	35	5	75	92	------	------	------
Foremen	28	16	------	3	8	------	1	------
Stereotypers	167	105	1	26	17	------	18	------
Other workers	91	33	1	24	32	------	1	------
Plate department:								
Apprentices	177	20	114	22	4	------	4	13
Artists, retouchers, and re-etchers	440	76	247	32	37	1	------	47
Engravers	162	49	74	5	27	------	2	5
Finishers	49	21	17	3	8	------	------	------
Foremen	46	13	25	1	4	------	1	2
Grainers	50	3	45	2	------	------	------	------

See footnotes at end of table.

TABLE 1.—*Average Hourly Earnings and Number of Wage Earners in Printing Plants Employing 21 or More Wage Earners, by Occupation, Branch, and Sex, 1942*—Con.

NUMBER OF WORKERS—Continued

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers	Gravure
***Males*—Continued**								
Plate department—Continued.								
Photographers and cameramen	211	37	135	10	13	------	1	15
Plate makers	184	48	101	24	1	------	1	9
Transferrers and provers	249	36	186	14	3	------	------	10
Other workers	420	63	285	3	15	1	------	53
Press department:								
Apprentices	611	307	95	70	118	1	5	15
Foremen	174	89	20	22	34	1	7	1
Machinists	39	17	2	13	7	------	------	------
Multilith operators	36	9	12	------	15	------	------	------
Press assistants and helpers	1,790	440	540	353	418	1	11	27
Press feeders	1,541	708	223	215	345	36	6	8
Press washers	191	42	51	40	58	------	------	------
Pressmen, cylinder	2,166	1,012	254	368	468	26	29	9
Pressmen, gravure	114	------	3	7	18	------	------	86
Pressmen, offset	611	149	430	27	4	------	1	------
Pressmen, platen	855	583	123	69	54	12	9	5
Pressmen, rotary and web-rotary	549	299	20	61	145	------	24	------
Overlay cutters	20	1	5	12	2	------	------	------
Other workers	1,121	216	145	378	241	10	3	128
Bindery department:								
Apprentices	223	80	15	38	40	48	2	------
Assistants and helpers	563	59	60	191	141	112	------	------
Folding-machine operators	374	91	46	93	89	53	1	1
Foremen	164	61	24	28	16	34	1	------
Hand workers	1,309	258	132	445	131	337	5	1
Machine feeders	218	14	17	35	106	46	------	------
Machine operators	1,026	190	124	299	120	289	4	------
Machinists	50	8	2	21	8	11	------	------
Power cutters	1,179	504	274	116	130	146	7	2
Ruling-machine operators	130	71	16	4	3	36	------	------
Shipping and stock department:								
Delivery and errand boys	409	210	105	30	36	18	10	------
Foremen	49	15	8	6	17	2	1	------
Mailers	262	37	32	16	111	28	38	------
Shipping clerks	408	189	107	45	25	36	3	3
Stock clerks	293	130	91	35	24	9	1	3
Truck drivers	263	117	55	22	39	25	3	2
Other workers	1,213	348	268	309	168	91	5	24
Maintenance department:								
Firemen	67	23	17	12	14	1	------	------
Janitors, watchmen, and service workers	1,037	350	206	173	240	39	17	12
Other semiskilled workers	177	62	48	34	26	6	1	------
Other unskilled workers	381	108	47	91	123	7	2	3
Skilled workers	336	102	55	63	93	12	------	11
Miscellaneous:								
Clerks, plant	154	24	98	18	12	2	------	------
Handicapped workers and learners	75	32	3	------	6	32	1	1
Females								
Total, females	10,093	3,298	1,921	1,977	1,441	1,406	39	11
Composing department:								
Apprentices	60	18	2	33	7	------	------	------
Compositors, hand and machine	206	43	5	105	44	2	7	------
Proofreaders	357	128	28	83	113	------	4	1
Other workers	219	64	11	73	70	------	1	------
Plate department: All workers	118	22	82	6	8	------	------	------
Press department:								
Apprentices	39	35	2	------	2	------	------	------
Press operators and feeders	286	196	42	9	26	9	4	------
Other workers	68	43	16	6	3	------	------	------
Bindery department:								
Apprentices	211	143	17	11	23	17	------	------
Forewomen	89	45	15	12	7	10	------	------
Hand workers	5,680	1,902	1,157	1,213	477	907	19	5
Machine operators and feeders	1,681	446	209	334	273	412	3	4
Shipping and stock department:								
Mailers	239	30	40	23	140	6	------	------
Other workers	271	77	100	17	67	9	1	------
Maintenance department: Maintenance workers	84	15	6	22	32	9	------	------
Miscellaneous:								
Clerks, plant	459	89	189	25	147	9	------	------
Handicapped workers and learners	26	2	------	5	2	16	------	1

[1] Includes 2 plants having fewer than 21 wage earners.

[2] Number of workers insufficient to permit presentation of an average.

As a matter of fact, the interbranch differences in occupational structure are apparent only in part from table 1, in which the establishments studied are classified on the basis of major product. Many establishments, of course, engage in more than one of the major branches of production, with a resulting confusion of occupational structure. Thus, some compositors are employed in plants that engage primarily in lithography. There are more bindery workers in general commercial printing establishments than there are in specialized bookbinding shops.

Among the numerically important occupations in the large plants are compositors of various types who account for slightly more than one-eighth of the male wage earners studied. Well over one-half (57 percent) of the compositors covered were hand compositors, while 37 percent were linotype operators. The remaining 6 percent consisted of Ludlow operators, monotype keyboard operators, and monotype casters. In most shops the foreman determines the method of typesetting to be used on a certain job. Usually the body type is set by machine—linotype or monotype—while the large headings and other display type are set by hand compositors or by a Ludlow operator, who combines both hand and machine work.

The hand compositor generally stands in front of a type case, selects the proper characters, and places them in a composing stick which he holds in one hand. After the stick is filled, the type is transferred carefully to a tray called a galley. Proofs are then made from these galleys and are checked and corrected by the proofreader. The linotype operator sits at a large machine which has a keyboard with many more keys than a typewriter. As the operator strikes these keys, characters or matrices are released until a complete line is formed in an assembly chamber. These lines are then released and travel automatically to a casting device where a line of type is formed from molten metal. These lines are then placed in galleys. Monotype operators operate a machine which is not only smaller than a linotype but which also operates on a somewhat different principle. By striking the keys the operator cuts holes through a strip of paper to form a perforated roll similar to that used on a player piano. When this roll of perforated paper is placed on a casting machine by a monotype caster operator, compressed air passing through the holes controls the automatic casting and arranging of the type. There are, of course, certain other auxiliary workers in the composing room, such as the stoneman, who assembles the galleys and engravings into an iron frame called the chase. Woman workers are seldom engaged as compositors. Only 2 percent of the 10,093 women included in the survey in large plants were hand or machine compositors. It is probable, of course, that war conditions will increase the number of women in these jobs.

In many plants skilled electrotypers and stereotypers duplicate the type forms on metal plates which are used in place of the original type. Use of plates is particularly desirable for large editions. Stereotype plates are used for most newspaper printing; electrotype plates are generally used for printing periodicals and books. Only slightly more than 1 percent of all male workers, and no female workers at all, were found in these two occupations.

Another important occupation in the printing industry is that of pressmen, who accounted for slightly over 15 percent of all male

workers in large plants. Of the several types of pressman found in the industry, cylinder pressmen were the most numerous, while platen pressmen ranked second; 50.4 and 19.9 percent, respectively, of all pressmen in large plants were found in these two occupations. In the other three classifications of pressmen, namely, offset, rotary and web-rotary, and gravure, were found respectively 14.2, 12.8, and 2.7 percent of all male pressmen in large plants. The pressman, with or without the help of feeders or assistants, is responsible for turning out the printed page, but his duties vary greatly with the type of press used. The operation of a hand-fed platen press is relatively simple in contrast with the job of operating complicated machines such as the large rotary presses. Women were not often found as press operators. Because of their small number, they were grouped with woman press feeders, and the combination group made up less than 3 percent of the woman workers included in the sample of large plants.

In the bindery department a different situation exists; women greatly surpass men in numerical importance. Of the 28,117 male wage earners included in the sample in the large plants, 5,236 (18.6 percent) were in bindery departments. In contrast, 7,661 woman workers were in the bindery departments, and this total accounted for more than three-fourths (75.9 percent) of the 10,093 women included in the sample of large establishments. Within binderies the jobs of men and women are normally quite distinct, men operating the heavier machines and women tending and feeding the lighter machines and performing hand work. This hand work, which occupies a great majority of the woman workers, includes a large variety of tasks, such as hand folding, pasting or tipping by hand, gathering, collating, and sewing. Although machinery exists for much of this work, part of it is performed by hand in virtually all binderies. As a general rule, women perform the various operations in binding, from the folding through the stitching process. Men are more commonly concerned with making the covers and backing of books, operating ruling machines and power cutters, and performing related tasks.

In addition to the production workers, there are in printing establishments numerous auxiliary and service occupations, such as shipping clerks, stock clerks, truck drivers, maintenance workers, and plant clerks. Roughly one-fifth of the men and one-tenth of the women in large plants were found in these auxiliary and service occupations.

In the small plants (establishments with fewer than 21 wage earners), data for which are presented in table 2, there is much less specialization than in large plants. For example, a much larger proportion of all-round printers, who perform a combination job of composition and presswork, is found in the small shops.

TABLE 2.—*Average Hourly Earnings and Number of Wage Earners in Printing Plants with Fewer Than 21 Wage Earners, by Occupation, Branch, and Sex, 1942*

AVERAGE HOURLY EARNINGS

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers
Males							
Total, males	$0.753	$0.780	$0.823	$0.780	$0.805	$0.717	$0.627
Composing department:							
All-round printers	.651	.693	(1)	(1)	(1)	(1)	.599
Apprentices	.485	.505	(1)	.501	(1)	(1)	.427
Compositors, hand	.916	.954	.891	.995	.932	(1)	.719
Foremen	1.034	1.149	-------	(1)	(1)	-------	.813
Linotype operators	.847	.926	.790	.916	.986	(1)	.714
Ludlow operators	.951	.933	-------	-------	-------	-------	(1)
Machinists	1.105	(1)	-------	(1)	(1)	-------	(1)
Monotype casters	(1)	(1)	-------	(1)	-------	-------	(1)
Monotype keyboard operators	.963	.955	-------	(1)	-------	-------	-------
Proofreaders	.949	1.019	(1)	(1)	-------	-------	(1)
Stonemen	.965	1.041	(1)	(1)	(1)	-------	.734
Other workers	.532	.537	-------	(1)	(1)	-------	.531
Electrotype and stereotype department:							
Apprentices	(1)	(1)	-------	-------	-------	-------	-------
Stereotypers	.751	.849	-------	(1)	-------	-------	.642
Other workers	(1)	-------	-------	-------	-------	-------	(1)
Plate department:							
Apprentices	.465	(1)	.463	-------	-------	-------	-------
Artists, retouchers, and re-etchers	.931	.826	.983	(1)	-------	-------	-------
Engravers	.862	.860	(1)	-------	-------	-------	(1)
Foremen	(1)	(1)	(1)	-------	-------	-------	-------
Photographers and cameramen	.980	(1)	.982	-------	-------	-------	-------
Platemakers	.947	.937	.972	(1)	-------	-------	(1)
Transferrers and provers	1.040	(1)	1.031	-------	-------	-------	-------
Other workers	.550	(1)	.581	(1)	-------	-------	(1)
Press department:							
Apprentices	.464	.473	(1)	(1)	(1)	-------	.410
Foremen	1.085	1.109	-------	(1)	(1)	-------	(1)
Multilith operators	.783	(1)	.889	(1)	-------	-------	-------
Press assistants and helpers	.613	.607	.738	.639	(1)	(1)	.542
Press feeders	.585	.583	.708	.677	.699	(1)	.433
Pressmen, cylinder	.908	.964	.995	.911	.900	-------	.661
Pressmen, offset	1.026	.968	1.063	(1)	-------	-------	-------
Pressmen, platen	.764	.776	.768	.819	.722	(1)	.605
Pressmen, rotary and web-rotary	.955	.991	(1)	(1)	(1)	-------	.725
Other workers	.443	.472	(1)	-------	(1)	-------	.375
Bindery department:							
Apprentices	.427	.379	-------	(1)	-------	.465	-------
Assistants and helpers	.505	.462	-------	(1)	-------	.533	-------
Folding-machine operators	.814	.664	-------	(1)	(1)	.982	-------
Foremen	1.005	.995	(1)	(1)	(1)	(1)	-------
Hand workers	.608	.536	(1)	(1)	(1)	.681	(1)
Machine operators	.806	.778	(1)	.916	(1)	.817	(1)
Power cutters	.860	.861	.878	.732	(1)	.886	(1)
Ruling-machine operators	.901	.926	-------	-------	-------	.896	(1)
Shipping and stock department:							
Delivery and errand boys	.362	.358	.436	.379	(1)	.360	.328
Mailers	.689	.867	-------	(1)	(1)	(1)	.451
Shipping and stock clerks	.610	.622	.675	(1)	(1)	.489	(1)
Truck drivers	.571	.564	(1)	-------	(1)	(1)	(1)
Other workers	.433	.436	(1)	(1)	(1)	.435	(1)
Maintenance department:							
Janitors, watchmen, and service workers	.412	.399	.405	.414	(1)	(1)	.461
Other maintenance workers	.586	.589	(1)	-------	-------	(1)	(1)
Miscellaneous: Handicapped workers and learners	.318	.384	(1)	(1)	(1)	(1)	.240
Females							
Total, females	.459	.461	.463	.443	.507	.463	.434
Composing department:							
Apprentices	(1)	(1)	-------	-------	-------	-------	(1)
Compositors, hand and machine	.542	.594	-------	(1)	(1)	(1)	.504
Proofreaders	.537	.595	(1)	(1)	(1)	-------	.401
Other workers	.461	.462	-------	-------	(1)	-------	(1)
Plate department: All workers	.475	.488	(1)	-------	-------	-------	-------
Press department:							
Apprentices	(1)	(1)	-------	-------	-------	-------	-------
Press operators and feeders	.464	.470	(1)	(1)	(1)	(1)	.376
Other workers	.387	.363	-------	-------	(1)	-------	(1)

See footnotes at end of table.

TABLE 2.—*Average Hourly Earnings and Number of Wage Earners in Printing Plants with Fewer Than 21 Wage Earners, by Occupation, Branch, and Sex, 1942*—Con.

AVERAGE HOURLY EARNINGS—Continued

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers
Females—Continued							
Bindery department:							
Apprentices	$0.370	$0.347	.....	(1)	.....	$0.382	.....
Forewomen	.606	(1)	.....	(1)	.....	(1)	.....
Hand workers	.439	.438	$0.423	$0.399	(1)	.454	$0.354
Machine operators and feeders	.492	.489	(1)	.462	(1)	.499	(1)
Shipping and stock department:							
Mailers	.440	.474	(1)	(1)	(1)	.....	(1)
Other workers	.432	.417	(1)	.....	(1)	.....	(1)
Maintenance department: Maintenance workers	.392	(1)	(1)	.....	.....	(1)	(1)
Miscellaneous:							
Clerks, plant	.495	.480	.503	(1)	.....	.....	.....
Handicapped workers and learners	.250	.286	(1)	.....	.....	(1)	.205

NUMBER OF WORKERS

Males							
Total, males	11,246	7,825	430	345	193	572	1,881
Composing department:							
All-round printers	602	317	4	3	5	4	269
Apprentices	326	228	2	15	5	1	75
Compositors, hand	1,383	1,101	12	38	22	2	208
Foremen	193	116	.....	8	4	.....	65
Linotype operators	1,495	865	13	42	39	4	532
Ludlow operators	16	14	.....	.....	.....	.....	2
Machinists	15	7	.....	1	3	.....	4
Monotype casters	6	2	.....	2	.....	.....	2
Monotype keyboard operators	31	30	.....	1	.....	.....	.....
Proofreaders	20	14	2	2	.....	.....	2
Stonemen	86	57	2	3	1	.....	23
Other workers	100	80	.....	2	1	.....	17
Electrotype and stereotype department:							
Apprentices	2	2	.....	.....	.....	.....	.....
Stereotypers	28	13	.....	1	.....	.....	14
Other workers	2	.....	.....	.....	.....	.....	2
Plate department:							
Apprentices	18	8	10	.....	.....	.....	.....
Artists, retouchers, and re-etchers	31	10	20	1	.....	.....	.....
Engravers	27	22	2	.....	.....	.....	3
Foremen	4	2	2	.....	.....	.....	.....
Photographers and cameramen	22	2	20	.....	.....	.....	.....
Plate makers	38	10	26	1	.....	.....	1
Transferrers and provers	22	2	20	.....	.....	.....	.....
Other workers	24	2	20	1	.....	.....	1
Press department:							
Apprentices	235	183	5	7	5	.....	35
Foremen	55	44	.....	1	2	.....	8
Multilith operators	26	8	16	2	.....	.....	.....
Press assistants and helpers	267	211	18	14	4	1	19
Press feeders	510	424	14	25	14	2	31
Pressmen, cylinder	1,200	906	16	46	30	.....	202
Pressmen, offset	120	47	69	4	.....	.....	.....
Pressmen, platen	1,651	1,442	25	37	18	7	122
Pressmen, rotary and web-rotary	98	71	3	4	1	.....	19
Other workers	116	78	8	.....	1	.....	29
Bindery department:							
Apprentices	56	29	.....	2	.....	25	.....
Assistants and helpers	69	26	.....	2	.....	41	.....
Folding-machine operators	55	20	.....	6	1	28	.....
Foremen	29	19	2	1	1	6	.....
Hand workers	223	99	5	6	2	107	4
Machine operators	292	133	2	11	4	141	1
Power cutters	372	293	25	12	4	37	1
Ruling-machine operators	117	43	.....	.....	.....	73	1
Shipping and stock department:							
Delivery and errand boys	420	328	18	15	6	42	11
Mailers	37	18	.....	1	2	3	13
Shipping and stock clerks	169	113	19	9	3	16	9
Truck drivers	59	47	4	.....	2	5	1
Other workers	92	54	8	6	3	15	6

See footnotes at end of table.

TABLE 2.—*Average Hourly Earnings and Number of Wage Earners in Printing Plants with Fewer Than 21 Wage Earners, by Occupation, Branch, and Sex, 1942*—Con.

NUMBER OF WORKERS—Continued

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers
Males—Continued							
Maintenance department:							
Janitors, watchmen, and service workers	232	154	13	11	6	9	39
Other maintenance workers	37	29	2			2	4
Miscellaneous: Handicapped workers and learners	218	102	3	2	4	1	106
Females							
Total, females	2,113	1,317	70	68	33	403	222
Composing department:							
Apprentices	8	3					5
Compositors, hand and machine	226	89		4	6	1	126
Proofreaders	61	39	1	7	1		13
Other workers	16	12			1		3
Plate department: All workers	13	10	3				
Press department:							
Apprentices	2	2					
Press operators and feeders	178	156	1	1	6	1	13
Other workers	12	10			1		1
Bindery department:							
Apprentices	28	13		1		14	
Forewomen	12	7		1		4	
Hand workers	1,159	748	27	40	9	298	37
Machine operators and feeders	241	137	5	11	3	83	2
Shipping and stock department:							
Mailers	31	18	4	2	5		2
Other workers	32	25	4		1		2
Maintenance department: Maintenance workers	14	9	3			1	1
Miscellaneous:							
Clerks, plant	45	23	21	1			
Handicapped workers and learners	35	16	1			1	17

[1] Number of workers insufficient to permit presentation of an average.

Hourly Earnings

If it were necessary to choose one occupation the rates for which were to be used for making comparisons between plants, regions, branches, or cities, the one key craft would undoubtedly be that of hand compositor. The male workers in this occupation earned an average of $1.185 in the large plants, the earnings ranging from $1.041 in bookbinding shops to $1.276 in the books branch. These figures, like other hourly earnings presented in this article, represent straight-time earnings, and are not influenced by premium payments for overtime work. Hand compositors averaged $1.165 an hour in the commercial printing branch and $1.044 an hour in small newspaper establishments. Higher-paid male wage earners in composing department occupations of large plants were foremen ($1.361), machinists ($1.291), monotype keyboard operators ($1.246), and linotype operators ($1.212) (table 1). In small plants male hand compositors earned an hourly average of 91.6 cents (table 2), or 26.9 cents less than comparable workers in large establishments.

Woman compositors, hand and machine, earned an hourly average of 81.4 cents in large plants, 54.2 cents in small plants. Earnings for women in this occupation in both large and small plants were thus substantially less than for men. It should be pointed out, however, that in this occupation, as in most occupations in which both man and woman workers are employed, the differences do not always reflect

accurately wage differences for equal work, since the classifications used are broad enough to permit considerable difference in type of work and degree of responsibility.

Average hourly earnings of proofreaders, a skilled occupation in the composing department in which women outnumbered men, amounted in the large plants to $1.151 for men and to 75 cents for women; in small shops the averages were 94.9 and 53.7 cents, respectively.

In the electrotype and stereotype department where only male workers were found, electrotypers in the large plants averaged $1.459. The earnings of workers in this occupation varied only slightly from branch to branch ($1.487 in periodicals, $1.458 in books, and $1.451 in commercial printing). Electrotypers were not found in the small shops. Stereotypers, another skilled occupation in the same department, earned $1.222 an hour in large plants and 75.1 cents in small plants.

Hourly earnings were particularly high in the plate department. Among the higher-paid occupations in this department in large plants were foremen ($1.667), finishers ($1.460), artists ($1.454), engravers ($1.432), and photographers and cameramen ($1.372). Grainers, who earned 84.1 cents an hour, and apprentices, who averaged 71.5 cents, were among the lower-paid workers.

In the important press department, gravure pressmen in large plants were the highest-paid male workers ($1.584). Other male workers in this department who averaged more than $1 an hour were foremen ($1.485), rotary and web-rotary pressmen ($1.351), offset pressmen ($1.258), cylinder pressmen ($1.161), machinists ($1.106), and overlay cutters ($1.102). Among the lower-paid occupations were press feeders (87.9 cents), press assistants and helpers (87.1 cents), apprentices (72.1 cents), multilith operators (69.5 cents), and press washers (53.7 cents). As in the other departments, hourly earnings in the press department of small plants were substantially lower than in large plants.

Bindery workers, as a group, were considerably lower paid than composition and pressroom wage earners. Only two occupations in this department had average earnings of more than $1 an hour—foremen who earned $1.127 an hour in large plants and $1.005 an hour in small shops and machinists who earned $1.040 an hour in large plants. As a group, woman bindery workers received relatively low earnings. Average earnings in the large plants amounted to 64.9 cents an hour for forewomen, 51.2 cents for machine operators and feeders, 45.9 cents for hand workers, and 42.6 cents for apprentices. In the same four occupations in the small shops bindery women earned between 2 and 6 cents less than in large plants.

Average hourly earnings for the auxiliary workers employed in the shipping and stock department, the maintenance department, and in miscellaneous other occupations were, on the whole, lower than those of the production workers. By and large, their duties call for much less skill. The organization of the work force along craft lines, with very little unionization of these auxiliary workers, may also account in part for these lower rates.

Substantial differences are apparent in the occupational averages presented for the various branches. In the gravure branch, the occupational earnings of male workers in large plants varied from a low of 53.6 cents an hour for janitors, watchmen, and service workers to a

high of $2.268 for transferrers and provers. By comparison, in the bookbinding branch, where the lowest level of earnings was found, the range in occupational average hourly earnings for male workers in the large plants was from 36.1 cents an hour for handicapped workers and learners to $1.211 for mailers. Substantial variations in average hourly earnings are found within most of the occupations listed. These differences are, on the whole, more pronounced in the skilled than in the unskilled occupations, and are greater for men than for the women.

OCCUPATIONAL EARNINGS BY REGION AND BY CITY

Regional variations in earnings are clearly reflected in the occupational data presented in table 3 for the commercial-printing branch of the industry. Because of the limited number of plants in the other branches studied, it was not practical to present regional data for each branch. It is believed that the variations indicated for the commercial branch are much the same as in the other branches.

TABLE 3.—*Number of Wage Earners and Average Hourly Earnings in Selected Occupations in the Commercial-Printing Branch of the Printing Industry, by Region, 1942*

Occupation	All regions		Pacific		Mountain	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Males:						
All-round printers	327	$0.700	45	$0.885	27	$0.589
Bindery workers	1,809	.836	168	.966	70	.843
Compositors, hand	2,135	1.056	258	1.197	74	.963
Electrotypers	35	1.451			2	(1)
Linotype operators	1,369	1.034	158	1.276	69	.908
Machinists, composing	33	1.248	10	1.355	2	(1)
Monotype keyboard operators	110	1.139	6	(1)	10	.994
Press assistants and helpers	651	.739	49	.746	28	.744
Press feeders	1,132	.754	68	.778	24	.575
Pressmen, cylinder	1,918	1.049	131	1.138	45	.958
Pressmen, offset	196	1.085	20	1.215	14	.991
Pressmen, platen	2,025	.831	173	.968	72	.777
Pressmen, rotary and web-rotary	370	1.162	124	1.211	2	(1)
Stereotypers	118	1.146	37	1.322	1	(1)
Stonemen	194	1.099	14	1.162	5	(1)
Females: Bindery workers	3,233	.461	418	.563	103	.473

Occupation	Great Lakes		Middle Atlantic		New England		South	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Males:								
All-round printers	88	$0.743	56	$0.694	35	$0.658	76	$0.608
Bindery workers	732	.848	465	.836	129	.730	245	.754
Compositors, hand	788	1.094	561	1.059	173	.894	281	.948
Electrotypers	30	1.492	3	(1)				
Linotype operators	403	1.003	423	1.083	62	.849	254	.948
Machinists, composing	7	(1)	11	1.338	1	(1)	2	(1)
Monotype keyboard operators	48	1.219	19	1.174	12	.966	15	1.044
Press assistants and helpers	175	.748	305	.784	21	.576	73	.581
Press feeders	506	.846	346	.716	83	.634	105	.597
Pressmen, cylinder	755	1.058	621	1.105	166	.926	200	.919
Pressmen, offset	86	1.118	34	1.071	6	(1)	36	1.036
Pressmen, platen	689	.899	552	.815	232	.736	307	.727
Pressmen, rotary and web-rotary	102	1.200	100	1.201	23	.903	19	.864
Stereotypers	30	1.067	37	1.238	7	(1)	6	(1)
Stonemen	64	1.143	79	1.129	23	.903	9	(1)
Females: Bindery workers	1,461	.455	577	.441	296	.434	378	.415

[1] Number of workers insufficient to permit presentation of an average.

Occupational average hourly earnings were generally highest in the Pacific region, next highest in the Great Lakes and Middle Atlantic areas, and lowest in the New England States. The earnings of linotype operators, for example, averaged $1.276 in the Pacific region, $1.083 in the Middle Atlantic States, $1.003 in the Great Lakes area, 94.8 cents in the South, 90.8 cents in the Mountain area, and 84.9 cents in the New England States. In a number of occupations, however, the averages for the New England area were higher than the corresponding averages for the South; and in a few instances they were higher than the corresponding averages for the Mountain area. All-round printers, cylinder pressmen, platen pressmen, rotary and web-rotary pressmen, press feeders, and female bindery workers all earned more in the New England States than in the South.

Examination of the data presented in table 4 for 5 selected occupations in 16 widely scattered cities reveals considerable variation in earnings from city to city. For example, the earnings of male hand compositors varied from 95.4 cents an hour in Baltimore to $1.356 in Chicago, and those of male bindery workers varied from 78.7 cents in Washington, D. C., to $1.262 in Seattle. The factors contributing to these differences are undoubtedly numerous. Among them are the extent of unionization, the high degree of autonomy of the union locals, and variation in size of establishments among cities. In general, however, the wages paid to workers in the printing industry in the respective cities are consistent with the wages paid in the same cities to workers in other industries. It should be pointed out that, for purposes of table 4, the printing industry was limited to the following branches: Commercial printing, lithography, books, periodicals, and bookbinding. In determining the average hourly earnings by city of such key occupations as hand compositors, linotype operators, pressmen, bookbinders, and bindery women it was desirable to exclude the small newspaper and gravure branches and confine the analysis to those branches considered within the jurisdiction of the book and job division of the international craft organizations.

TABLE 4.—*Number of Wage Earners and Average Hourly Earnings in Selected Occupations in the Printing Industry,*[1] *by Selected City, 1942*

Selected city	Compositors, hand, male		Linotype operators, male		Pressmen, male		Bindery workers, male		Bindery workers, female	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Baltimore, Md	32	$0.954	24	$1.002	117	$0.856	97	$0.961	102	$0.400
Boston, Mass	77	.989	33	1.072	171	.925	93	.844	187	.456
Chicago, Ill	304	1.356	114	1.243	734	1.279	809	.862	1,607	.474
Cleveland, Ohio	39	1.152	10	1.039	73	1,130	19	.981	39	.483
Detroit, Mich	60	1.254	106	1.411	108	1.166	71	1.017	167	.540
Indianapolis, Ind	30	1.118	12	1.141	70	1.046	51	.933	109	.465
Los Angeles, Calif	72	1.054	32	1.121	170	.964	84	.891	216	.542
Minneapolis, Minn	44	1.115	19	1.087	81	1.055	40	.879	81	.490
New York, N. Y	341	1.204	300	1.236	910	1.146	971	.884	911	.497
Philadelphia, Pa	259	1.173	115	1.186	401	1.161	370	.883	401	.483
Pittsburgh, Pa	12	1.009	17	1.221	35	.900	18	.822	17	.454
St. Louis, Mo	109	1.091	42	1.127	193	1.017	117	.802	210	.462
St. Paul, Minn	46	1.092	10	1.073	89	1.063	40	.946	82	.486
San Francisco, Calif	79	1.354	47	1.339	119	1.281	62	1.187	109	.658
Seattle, Wash	33	1.310	18	1.477	38	1.196	11	1.262	21	.672
Washington, D. C	33	1.278	34	1.268	57	1.140	32	.787	59	.525

[1] Includes commercial printing, lithography, books, periodicals, and bookbinding.

Weekly Hours and Earnings

WEEKLY HOURS

Wage earners in the printing industry worked an average of 40.1 hours during the sample week studied in January 1942. Male workers averaged 2 hours more per week than female workers, the respective averages being 40.6 and 38.6 hours (table 5).

TABLE 5.—*Percentage Distribution of Wage Earners in Specified Branches of the Printing Industry, by Weekly Hours and Sex, 1942*

Weekly hours actually worked	All branches			Commercial printing			Lithography			Books		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Under 16 hours	3.3	3.1	4.0	3.8	3.7	4.1	1.4	1.2	2.1	2.7	2.2	4.1
16 and under 20 hours	1.7	1.7	1.8	1.9	1.8	2.4	1.1	1.0	1.5	1.8	2.0	1.2
20 and under 24 hours	1.1	1.0	1.4	1.4	1.3	1.7	.6	.5	.8	.8	.6	1.2
24 and under 28 hours	2.1	2.0	2.5	2.2	2.1	2.6	1.5	1.2	2.2	2.0	2.1	1.9
28 and under 32 hours	2.0	1.7	3.0	2.0	1.8	2.5	2.3	1.9	3.5	1.6	1.1	2.9
32 and under 36 hours	5.0	4.9	5.5	5.3	5.1	6.0	4.6	4.2	5.7	4.2	4.4	3.8
36 and under 40 hours	7.3	6.7	9.1	6.9	6.6	8.1	7.8	6.8	10.7	6.5	5.6	8.8
Exactly 40 hours	40.8	40.4	41.8	43.4	43.4	43.2	36.3	34.8	41.3	42.8	42.5	42.9
40.1 and under 44 hours	9.4	9.9	7.8	8.7	9.5	5.7	13.4	13.6	12.7	5.9	6.8	3.7
44 and under 48 hours	12.6	12.4	13.2	13.0	12.3	15.8	13.9	14.6	11.6	10.5	9.3	13.9
48 and under 52 hours	8.1	8.2	7.9	6.5	6.6	6.0	8.3	9.1	5.7	10.3	9.9	11.6
52 and under 56 hours	3.4	4.1	1.1	2.3	2.7	1.0	4.6	5.7	1.3	7.1	9.1	1.8
56 hours and over	3.2	3.9	.9	2.6	3.1	.9	4.2	5.4	.9	3.8	4.4	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	51,569	39,363	12,206	22,314	17,699	4,615	7,838	5,847	1,991	7,465	5,420	2,045
Average weekly hours	40.1	40.6	38.6	39.4	39.6	38.3	41.5	42.3	39.2	41.5	42.2	39.7

Weekly hours actually worked	Periodicals			Bookbinding			Small newspapers			Gravure		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Under 16 hours	3.7	3.2	5.4	3.1	2.6	3.6	6.4	6.0	10.0	5.9	5.2	36.3
16 and under 20 hours	1.5	1.5	1.6	1.5	1.4	1.5	1.9	1.9	1.5	2.5	2.6	.....
20 and under 24 hours	1.0	1.0	.7	1.1	.9	1.4	1.8	1.6	3.1	.6	.6	.....
24 and under 28 hours	2.3	2.2	2.6	2.0	1.6	2.6	2.5	2.2	5.7	3.7	3.6	9.1
28 and under 32 hours	1.7	1.5	2.4	2.8	1.6	4.1	2.3	2.0	5.0	2.7	2.8	.....
32 and under 36 hours	5.9	5.9	5.9	3.9	2.7	5.3	4.2	3.8	6.9	16.3	16.1	27.3
36 and under 40 hours	8.6	8.1	10.4	7.4	5.9	9.2	5.8	5.5	8.0	15.5	15.6	9.1
Exactly 40 hours	40.4	41.2	38.2	42.2	41.5	42.8	29.6	30.0	28.8	19.7	19.7	18.2
40.1 and under 44 hours	12.2	11.3	15.7	6.8	7.8	5.7	9.0	9.0	8.4	8.2	8.4	.....
44 and under 48 hours	9.3	9.7	7.9	13.8	14.9	12.6	18.7	19.7	9.6	7.3	7.4	.....
48 and under 52 hours	7.6	7.3	8.5	10.7	11.5	9.8	12.4	12.5	11.9	9.4	9.6	.....
52 and under 56 hours	2.1	2.5	.5	2.3	3.5	1.0	2.8	3.0	1.1	4.3	4.4	.....
56 hours and over	3.7	4.6	.2	2.4	4.1	.4	2.6	2.8	.....	3.9	4.0	.....
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	6,895	5,421	1,474	3,921	2,112	1,809	2,626	2,365	261	510	499	11
Average weekly hours	39.7	40.2	38.2	40.2	41.4	38.7	39.3	39.7	35.6	38.1	38.4	23.5

Examination of the distribution of individual hours reveals that two-fifths of all wage earners (40.8 percent) worked exactly 40 hours per week and that somewhat more than one-third (36.7 percent) worked in excess of 40 hours per week. The longer hours of the latter group of workers were about offset by the shorter hours worked by slightly more than one-fifth (22.5 percent) of the workers. Not all of the workers on shorter hours, of course, should be considered part-time workers, as a standard workweek of less than 40 hours is not uncommon in this industry.

Average hours worked per week did not vary notably among branches of the industry. The shortest week, 38.1 hours, was found in the gravure branch and the longest, 41.5 hours, was in the lithography and books branches. On the whole, the longest hours worked were found in the maintenance and in the shipping and stock departments. For example, in the composing department of large plants, the range in the average weekly hours of male workers was from 37.0 for copyholders to 42.0 for proof-press operators, whereas in the maintenance department average weekly hours varied from a low of 43.6 for other unskilled workers to a high of 47.1 for firemen. The hours worked by woman workers show comparatively little variation.

WEEKLY EARNINGS

As a group, printing-trades workers earned an average of $32.66 a week in January 1942 (table 6). These earnings are gross figures, including premium earnings for overtime work. Individual weekly earnings varied widely; the averages ranged from less than $10 to more than $100. Many part-time workers, of course, are to be found in the lower-wage brackets.

TABLE 6.—*Percentage Distribution of Wage Earners in Specified Branches of the Printing Industry, by Weekly Earnings and Sex, 1942*

Weekly earnings	All branches			Commercial printing			Lithography			Books		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Under $10.00	4.5	3.5	8.0	4.8	3.8	8.5	2.2	1.5	4.4	3.7	2.3	7.2
$10.00 and under $12.50	3.0	2.2	5.6	3.4	2.7	6.1	2.2	1.4	4.6	2.2	1.5	4.1
$12.50 and under $15.00	4.6	2.8	10.6	4.4	2.9	10.1	5.9	3.0	14.4	4.7	2.5	10.5
$15.00 and under $17.50	7.9	4.7	17.8	7.2	4.6	17.3	8.2	4.0	20.1	8.7	5.0	18.9
$17.50 and under $20.00	7.0	4.6	14.9	7.0	4.4	17.1	7.6	5.0	15.2	6.1	4.6	9.9
$20.00 and under $22.50	8.2	5.8	15.4	7.6	5.8	14.9	9.3	5.9	18.6	7.2	4.9	13.4
$22.50 and under $25.00	5.8	4.6	9.5	5.2	4.2	8.9	5.6	5.1	7.1	6.4	4.0	12.6
$25.00 and under $27.50	6.1	5.9	6.9	6.0	5.9	6.7	5.9	5.6	6.9	5.5	5.1	6.6
$27.50 and under $30.00	4.5	4.7	3.9	4.5	4.8	3.5	4.7	5.0	3.9	4.3	4.1	4.6
$30.00 and under $32.50	5.5	6.3	2.6	6.2	7.1	2.8	5.1	6.3	1.4	4.7	4.9	4.2
$32.50 and under $35.00	3.9	4.6	1.6	4.2	4.9	1.6	4.0	5.0	1.2	3.3	3.5	2.9
$35.00 and under $37.50	4.4	5.6	.8	5.0	6.1	.8	4.3	5.6	.5	3.4	4.3	1.2
$37.50 and under $40.00	3.4	4.3	.6	3.8	4.7	.6	3.0	4.0	.1	3.2	4.0	1.2
$40.00 and under $42.50	4.6	5.9	.4	5.3	6.5	.4	4.2	5.6	.4	4.3	5.7	.4
$42.50 and under $45.00	3.4	4.3	.4	3.3	4.2	.2	3.6	4.8	.2	3.7	4.8	.6
$45.00 and under $47.50	4.1	5.2	.3	4.3	5.4	.2	3.6	4.8	.2	3.4	4.5	.4
$47.50 and under $50.00	3.2	4.2	.2	3.2	4.0	(1)	3.0	4.0	.1	3.5	4.7	.2
$50.00 and under $52.50	3.2	4.1	.1	3.5	4.5	(1)	2.9	3.8	.3	2.7	3.7	(1)
$52.50 and under $55.00	1.9	2.5	.1	1.8	2.2	.2	2.0	2.7	.1	2.0	2.7	.1
$55.00 and under $57.50	2.1	2.8	.1	2.2	2.8	.1	2.3	3.1	------	2.7	3.7	.3
$57.50 and under $60.00	1.6	2.0	.1	1.5	1.8	------	1.4	1.8	.1	2.3	3.1	.4
$60.00 and under $62.50	1.5	2.0	.1	1.4	1.7	(1)	1.8	2.4	------	2.4	3.2	.1
$62.50 and under $65.00	.9	1.2	(1)	.9	1.1	(1)	.9	1.2	------	1.4	2.0	------
$65.00 and under $67.50	.8	1.1	(1)	.8	.9	(1)	1.1	1.4	------	1.2	1.6	(1)
$67.50 and under $70.00	.7	.9	(1)	.6	.7	------	.7	1.0	.1	.9	1.2	.1
$70.00 and under $75.00	.9	1.2	(1)	.7	.9	(1)	1.2	1.6	.1	1.3	1.7	.1
$75.00 and under $80.00	.6	.8	(1)	.4	.5	(1)	.9	1.1	------	.9	1.2	(1)
$80.00 and under $85.00	.4	.5	------	.3	.3	------	.7	.9	------	.5	.8	------
$85.00 and under $90.00	.3	.4	(1)	.1	.1	(1)	.4	.6	------	.6	.9	------
$90.00 and under $95.00	.2	.3	(1)	.1	.2	(1)	.3	.4	------	.4	.5	------
$95.00 and under $100.00	.2	.2	(1)	.1	.1	------	.3	.5	------	.4	.5	(1)
$100.00 and over	.6	.8	------	.2	.2	------	.7	.9	------	2.0	2.8	------
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	51,569	39,363	12,206	22,314	17,699	4,615	7,838	5,847	1,991	7,465	5,420	2,045
Average weekly earnings	$32.66	$36.76	$19.41	$31.84	$35.16	$19.11	$33.55	$38.47	$19.10	$36.05	$41.82	$20.77

[1] Less than a tenth of 1 percent.

TABLE 6.—*Percentage Distribution of Wage Earners in Specified Branches of the Printing Industry, by Weekly Earnings and Sex, 1942*—Continued

Weekly earnings	Periodicals			Bookbinding			Small newspapers			Gravure		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Under $10.00	4.3	2.8	9.9	5.9	4.1	7.8	10.2	8.7	24.4	5.3	4.4	45.5
$10.00 and under $12.50	2.2	1.6	4.7	3.9	1.7	6.4	5.6	4.6	14.7	1.2	1.0	9.1
$12.50 and under $15.00	3.3	2.3	6.8	7.3	3.9	11.3	3.4	2.7	10.3	2.2	2.2	------
$15.00 and under $17.50	6.4	4.2	14.4	12.6	8.0	18.3	6.2	5.7	10.3	1.2	.6	27.2
$17.50 and under $20.00	6.6	3.7	17.2	10.2	7.4	13.5	5.3	4.8	10.0	2.2	2.0	9.1
$20.00 and under $22.50	7.0	4.9	14.8	12.4	8.3	17.5	7.8	7.9	6.9	2.2	2.2	------
$22.50 and under $25.00	5.4	4.0	10.3	8.4	7.7	9.3	7.0	6.6	10.3	1.2	1.2	------
$25.00 and under $27.50	5.6	5.2	7.3	6.9	6.1	7.8	9.8	10.7	3.1	4.3	4.4	------
$27.50 and under $30.00	4.2	4.1	4.7	4.7	5.3	4.0	5.7	6.0	2.7	3.3	3.4	------
$30.00 and under $32.50	4.5	4.9	2.8	3.9	5.6	1.9	8.4	9.3	.8	4.7	4.8	------
$32.50 and under $35.00	3.5	4.1	1.1	2.8	4.4	1.0	4.8	5.1	1.9	4.9	5.0	------
$35.00 and under $37.50	4.3	5.3	.9	3.1	5.4	.4	5.1	5.6	1.1	3.7	3.8	------
$37.50 and under $40.00	3.6	4.4	.8	1.8	3.2	.2	3.4	3.6	1.1	3.1	3.2	------
$40.00 and under $42.50	4.0	4.8	.8	3.6	6.4	.2	4.5	5.0	.4	2.7	2.8	------
$42.50 and under $45.00	4.4	5.3	.9	1.6	2.8	.2	2.9	3.1	.8	2.5	2.6	------
$45.00 and under $47.50	5.7	7.2	.6	2.5	4.7	------	2.9	3.2	.4	5.8	5.9	------
$47.50 and under $50.00	4.7	5.8	.5	1.8	3.3	------	1.8	1.9	.4	4.7	4.6	9.1
$50.00 and under $52.50	4.3	5.4	.3	1.8	3.2	.1	1.6	1.7	------	3.3	3.4	------
$52.50 and under $55.00	2.9	3.7	.1	1.2	2.3	------	1.0	1.1	------	2.5	2.6	------
$55.00 and under $57.50	2.3	2.9	.2	1.0	1.8	------	.6	.7	------	2.7	2.8	------
$57.50 and under $60.00	2.3	2.8	.2	.5	.9	------	.6	.6	------	2.2	2.2	------
$60.00 and under $62.50	1.5	1.8	.2	.6	1.0	.1	.6	.6	.4	2.9	3.0	------
$62.50 and under $65.00	.9	1.1	.1	.2	.4	------	.3	.3	------	1.8	1.8	------
$65.00 and under $67.50	.9	1.1	.1	.4	.7	------	.1	.1	------	.6	.6	------
$67.50 and under $70.00	.9	1.2	.1	(1)	(1)	------	.1	.1	------	5.5	5.7	------
$70.00 and under $75.00	1.1	1.4	.1	.4	.8	------	.2	.2	------	5.7	5.8	------
$75.00 and under $80.00	.9	1.1	.1	1	.1	------	.1	.1	------	5.9	6.0	------
$80.00 and under $85.00	.6	.7	------	.1	.1	------	------	------	------	2.5	2.6	------
$85.00 and under $90.00	.4	.5	------	.1	.1	------	------	------	------	2.5	2.6	------
$90.00 and under $95.00	.3	.3	------	(1)	(1)	------	(1)	(1)	------	1.6	1.6	------
$95.00 and under $100.00	.2	.3	------	------	------	------	------	------	------	2.0	2.0	------
$100.00 and over	.8	1.1	------	.2	.3	------	(1)	(1)	------	3.1	3.2	------
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	6,895	5,421	1,474	3,921	2,112	1,809	2,626	2,365	261	510	499	11
Average weekly earnings	$35.66	$39.84	$20.32	$25.56	$31.41	$18.72	$26.64	$27.79	$16.20	$49.80	$50.60	$13.37

[1] Less than a tenth of 1 percent.

It is evident that the wide dispersion in individual earnings is to a large extent due to sharp differences in the earnings of man and woman workers, which averaged $36.76 and $19.41, respectively. It will be recalled that male workers not only had much higher average hourly earnings than women, but also worked longer hours. The weekly earnings of woman workers were largely confined to the lower wage brackets, while those of male workers were widely distributed among the intermediate and upper brackets. Approximately two-thirds of all woman workers earned between $15 and $27.50, and less than one-eighth earned $27.50 or more. In contrast, only one-fourth of the male workers earned between $15 and $27.50 and two-thirds earned $27.50 or more.

Occupation tends to determine the general level of weekly earnings. Although in the large plants certain of the highly skilled occupations had average weekly earnings in excess of $75, such earnings were by no means typical (table 7). Earnings ranging from an average of $40 to $60 a week were common for most of the skilled workers, and only the unskilled workers and apprentices found less than $30, on the average, in their weekly pay envelope. Weekly earnings in small plants were substantially lower than in large plants.

TABLE 7.—*Average Weekly Earnings of Wage Earners in Large and Small Printing Plants, by Occupation, Branch, and Sex, 1942*

PLANTS EMPLOYING 21 OR MORE WAGE EARNERS

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers	Gravure [1]
Males								
Total males	$39.28	$38.16	$38.81	$42.57	$40.12	$32.12	$35.09	$50.60
Composing department:								
All-round printers	33.27	35.69	(2)			(2)		(2)
Apprentices	25.98	24.80	24.68	27.29	28.25	(2)	21.33	
Compositors, hand	46.33	45.78	47.01	49.06	46.52	44.92	39.89	(2)
Copyholders	19.48	21.85	(2)	(2)	14.60			
Foremen	56.88	59.68	52.08	53.41	58.20	(2)	54.05	
Linotype operators	46.90	46.74	46.47	51.73	45.12	(2)	41.47	
Ludlow operators	39.92	(2)	(2)		(2)	(2)		
Machinists	53.00	51.71	(2)	55.64	54.92		(2)	
Monotype casters	46.74	45.03	(2)	49.62	50.37			
Monotype keyboard operators	50.72	49.79	49.41	51.45	55.38		(2)	
Proof-press operators	44.70	36.16	(2)	(2)	49.88			
Proofreaders	45.44	42.48	45.45	56.36	42.27		(2)	
Stonemen	46.51	46.43	51.57	48.23	43.42	(2)	(2)	
Other workers	21.66	21.66	21.55	20.10	24.46		(2)	
Electrotype and stereotype department:								
Apprentices	29.70	26.63	(2)	(2)	33.11		(2)	
Electrotypers	56.73	59.22	(2)	57.11	55.93			
Foremen	64.33	58.16		(2)	(2)		(2)	
Stereotypers	44.78	42.07	(2)	49.89	47.53		51.49	
Other workers	29.02	33.97	(2)	24.50	28.03		(2)	
Plate department:								
Apprentices	29.52	22.22	28.58	27.13	(2)		(2)	47.71
Artists, retouchers, and re-etchers	63.52	45.99	61.00	70.44	93.17	(2)		77.38
Engravers	59.66	52.42	52.67	(2)	85.74		(2)	(2)
Finishers	61.22	56.39	48.47	(2)	(2)			
Foremen	71.69	67.00	69.62	(2)	(2)		(2)	(2)
Grainers	35.95	(2)	35.65	(2)				
Photographers and cameramen	58.12	47.38	55.09	75.51	88.17		(2)	76.05
Platemakers	51.88	45.60	51.64	62.98	(2)		(2)	(2)
Transferrers and provers	53.64	52.24	50.10	71.53	(2)			95.01
Other workers	30.20	23.49	27.44	(2)	40.66	(2)		50.76
Press department:								
Apprentices	31.11	26.76	29.03	43.76	36.29	(2)	(2)	37.40
Foremen	64.22	65.02	66.54	62.02	63.55	(2)	(2)	(2)
Machinists	49.14	52.63	(2)	48.53	(2)			
Multilith operators	29.14	(2)	33.51		26.02			
Press assistants and helpers	39.43	31.83	32.21	54.54	43.84	(2)	20.23	50.59
Press feeders	35.45	33.89	32.67	41.31	37.59	28.92	(2)	(2)
Press washers	25.20	25.42	24.57	29.12	22.89			
Pressmen, cylinder	48.12	45.77	48.33	55.90	47.92	41.18	39.50	(2)
Pressmen, gravure	65.83		(2)	(2)	82.64			62.98
Pressmen, offset	55.54	47.35	58.62	52.63	(2)		(2)	
Pressmen, platen	39.61	40.15	37.08	42.44	38.93	32.24	(2)	(2)
Pressmen, rotary and web-rotary	59.24	51.09	57.84	85.64	69.48		32.95	
Overlay cutters	57.53	(2)	(2)	56.41	(2)			
Other workers	30.83	26.36	28.50	35.43	28.21	24.58	(2)	33.10
Bindery department:								
Apprentices	26.88	26.41	24.30	33.23	24.60	25.48	(2)	
Assistants and helpers	21.16	20.67	22.23	24.43	18.92	18.08		
Folding-machine operators	45.26	37.18	38.05	65.18	40.74	38.29	(2)	(2)
Foremen	50.23	52.07	48.75	53.73	48.12	46.15	(2)	
Hand workers	27.58	24.82	25.78	28.89	24.54	30.18	(2)	(2)
Machine feeders	28.44	34.53	29.12	29.74	28.03	26.30		
Machine operators	42.43	38.29	37.91	48.52	46.50	39.20	(2)	
Machinists	48.57	(2)	(2)	57.74	(2)	41.06		
Power cutters	44.46	44.07	45.40	51.68	42.44	41.11	(2)	(2)
Ruling-machine operators	44.26	47.82	41.90	(2)	(2)	39.50		
Shipping and stock department:								
Delivery and errand boys	15.09	15.09	14.70	16.39	16.24	14.94	11.47	
Foremen	48.59	54.40	(2)	(2)	45.85	(2)	(2)	
Mailers	25.35	23.59	21.13	29.48	27.19	26.17	22.90	
Shipping clerks	35.74	35.41	36.99	38.27	33.53	33.40	(2)	(2)
Stock clerks	30.53	30.59	28.91	32.55	33.25	(2)	(2)	(2)
Truck drivers	33.94	31.92	37.12	31.08	35.72	36.44	(2)	(2)
Other workers	25.00	23.80	23.84	26.96	26.12	23.35	(2)	31.15
Maintenance department:								
Firemen	38.32	45.17	34.73	40.70	31.10	(2)		
Janitors, watchmen, and service workers	24.63	22.78	23.78	26.08	27.49	22.72	21.31	26.45
Other semiskilled workers	34.89	33.14	36.02	35.38	36.65	(2)	(2)	
Other unskilled workers	26.17	24.86	24.76	27.11	27.60	(2)	(2)	(2)
Skilled workers	54.20	54.83	51.62	56.83	50.59	53.39		77.61

See footnotes at end of table.

TABLE 7.—*Average Weekly Earnings of Wage Earners in Large and Small Printing Plants, by Occupation, Branch, and Sex, 1942*—Continued

PLANTS EMPLOYING 21 OR MORE WAGE EARNERS—Continued

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers	Gravure
Males—Continued								
Miscellaneous:								
Clerks, plant	$28.66	$33.17	$26.36	$29.34	$36.94	(1)		
Handicapped workers and learners	19.36	22.29	(1)		(1)	$12.90	(1)	(1)
Females								
Total females	19.93	19.96	19.20	20.95	20.37	19.05	$19.21	$13.37
Composing department:								
Apprentices	19.09	18.47	(1)	18.00	(1)			
Compositors, hand and machine	31.58	31.63	(1)	29.33	37.54	(1)	(1)	
Proofreaders	29.91	30.39	23.32	32.99	28.57		(1)	(1)
Other workers	17.85	17.58	22.36	17.56	17.71		(1)	
Plate department: All workers	21.98	24.15	20.83	(1)	(1)			
Press department:								
Apprentices	19.50	19.01	(1)		(1)			
Press operators and feeders	23.66	22.76	19.37	(1)	39.98	(1)	(1)	
Other workers	21.16	20.55	20.24	(1)	(1)			
Bindery department:								
Apprentices	17.66	18.77	15.20	17.47	15.31	14.09		
Forewomen	28.15	26.57	31.72	28.84	(1)	28.28		
Hand workers	18.42	18.39	18.22	19.26	16.88	18.55	13.19	(1)
Machine operators and feeders	21.33	21.41	20.70	23.11	20.95	20.59	(1)	(1)
Shipping and stock department:								
Mailers	17.43	17.95	19.79	14.52	17.21	(1)		
Other workers	19.54	21.25	19.09	15.55	19.70	(1)	(1)	
Maintenance department: Maintenance workers	19.46	14.95	(1)	21.86	20.72	(1)		
Miscellaneous:								
Clerks, plant	20.20	19.68	20.97	20.12	19.73	(1)		
Handicapped workers and learners	11.03	(1)		(1)	(1)	10.38		(1)

PLANTS EMPLOYING FEWER THAN 21 WAGE EARNERS

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers
Males							
Total males	$30.46	$31.37	$34.26	$30.71	$32.10	$29.49	$25.91
Composing department:							
All-round printers	28.05	29.58	(1)	(1)	(1)	(1)	26.12
Apprentices	18.80	19.54	(1)	19.35	(1)	(1)	16.70
Compositors, hand	36.50	37.61	37.99	37.01	37.33	(1)	30.55
Foremen	45.63	49.60		(1)	(1)		37.71
Linotype operators	34.37	36.78	30.43	34.31	38.59	(1)	30.37
Ludlow operators	38.99	39.15					(1)
Machinists	40.66	(1)		(1)	(1)		(1)
Monotype casters	(1)	(1)		(1)			(1)
Monotype keyboard operators	39.51	39.23		(1)			
Proofreaders	36.38	38.93	(1)	(1)			(1)
Stonemen	41.10	43.92	(1)	(1)	(1)		32.39
Other workers	22.26	22.82		(1)	(1)		20.78
Electrotype and stereotype department:							
Apprentices	(1)	(1)					
Stereotypers	28.36	30.34		(1)			25.70
Other workers	(1)						(1)
Plate department:							
Apprentices	17.13	(1)	15.87				
Artists, retouchers, and re-etchers	37.64	32.53	40.58	(1)			
Engravers	33.28	33.16	(1)				(1)
Foremen	(1)	(1)	(1)				
Photographers and cameramen	37.95	(1)	37.89				
Plate makers	40.52	39.66	42.47	(1)			(1)
Transferrers and provers	42.37	(1)	42.11				
Other workers	23.01	(1)	24.86	(1)			(1)

See footnotes at end of table.

TABLE 7.—*Average Weekly Earnings of Wage Earners in Large and Small Printing Plants, by Occupation, Branch, and Sex, 1942*—Continued.

PLANTS EMPLOYING FEWER THAN 21 WAGE EARNERS—Continued

Occupation	All branches	Commercial printing	Lithography	Books	Periodicals	Bookbinding	Small newspapers
Males—Continued							
Press department:							
Apprentices	$18.16	$18.56	[2]	[2]	[2]	----	$15.68
Foremen	47.34	48.22	----	[2]	[2]	----	[2]
Multilith operators	30.32	[2]	$35.29	[2]	----	----	----
Press assistants and helpers	25.16	24.88	34.39	$24.87	[2]	[2]	19.64
Press feeders	22.96	22.73	26.89	27.03	$30.46	[2]	17.79
Pressmen, cylinder	37.34	39.48	35.45	37.68	37.79	----	27.75
Pressmen, offset	44.28	41.30	46.59	[2]	----	----	----
Pressmen, platen	31.20	31.62	31.25	33.35	27.59	[2]	25.80
Pressmen, rotary and web-rotary	39.49	40.39	[2]	[2]	[2]	----	30.27
Other workers	16.21	17.75	[2]	----	[2]	----	12.43
Bindery department:							
Apprentices	16.99	14.92	----	[2]	----	$18.76	----
Assistants and helpers	19.43	16.75	----	[2]	----	21.66	----
Folding-machine operators	31.99	26.25	----	[2]	[2]	39.18	----
Foremen	43.74	44.33	[2]	[2]	[2]	[2]	----
Hand workers	23.34	19.48	[2]	[2]	[2]	28.04	[2]
Machine operators	33.76	32.50	[2]	35.85	[2]	34.47	[2]
Power cutters	35.97	36.27	36.99	28.05	[2]	37.10	[2]
Ruling-machine operators	36.38	34.94	----	----	----	37.51	[2]
Shipping and stock department:							
Delivery and errand boys	13.90	13.66	17.57	15.92	[2]	14.66	8.23
Mailers	17.29	19.13	----	[2]	[2]	[2]	10.42
Shipping and stock clerks	26.07	26.89	28.37	[2]	[2]	21.09	[2]
Truck drivers	23.91	23.78	[2]	----	[2]	[2]	[2]
Other workers	17.77	18.75	[2]	[2]	[2]	17.66	[2]
Maintenance department:							
Janitors, watchmen, and service workers	15.47	15.62	17.07	16.65	[2]	[2]	13.97
Other maintenance workers	23.24	23.13	[2]	----	----	[2]	[2]
Miscellaneous:							
Handicapped workers and learners	12.04	14.75	[2]	[2]	[2]	[2]	8.92
Females							
Total females	16.92	16.99	16.44	15.49	18.30	17.60	15.67
Composing department:							
Apprentices	[2]	[2]	----	----	----	----	[2]
Compositors, hand and machine	20.18	22.17	----	[2]	[2]	[2]	18.63
Proofreaders	20.91	22.65	[2]	[2]	[2]	----	16.59
Other workers	17.99	17.84	----	----	[2]	----	[2]
Plate department: All workers	18.28	18.51	[2]	----	----	----	----
Press department:							
Apprentices	[2]	[2]	----	----	----	----	----
Press operators and feeders	18.19	18.45	[2]	[2]	[2]	[2]	14.90
Other workers	15.27	14.93	----	----	[2]	----	[2]
Bindery department:							
Apprentices	14.11	12.91	----	[2]	----	15.17	----
Forewomen	24.70	[2]	----	[2]	----	[2]	----
Hand workers	15.89	15.71	13.79	13.54	[2]	17.50	10.73
Machine operators and feeders	18.15	18.36	[2]	15.06	[2]	18.00	[2]
Shipping and stock department:							
Mailers	16.06	18.08	[2]	[2]	[2]	----	[2]
Other workers	16.03	15.93	[2]	----	[2]	----	[2]
Maintenance department:							
Maintenance workers	12.86	[2]	[2]	----	----	[2]	[2]
Miscellaneous:							
Clerks, plant	18.25	17.53	18.67	[2]	----	----	----
Handicapped workers and learners	9.86	11.78	[2]	----	----	[2]	7.88

[1] Includes 2 plants having fewer than 21 wage earners.
[2] Number of workers insufficient to permit presentation of an average.

EARNINGS IN MANUFACTURE OF INTERNAL-COMBUSTION ENGINES, 1942 [1]

Summary

THIS survey of earnings in plants manufacturing internal-combustion engines is the eighth in a series undertaken by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on various branches of the machinery industry.

The manufacture of internal-combustion engines is concentrated in the States of Wisconsin, New York, Ohio, Michigan, and Pennsylvania. According to the latest Census of Manufactures (1939), one-fifth of the plants, which employed one-third of the workers in the industry, were in Wisconsin. Altogether, 21 plants were covered in the Bureau's survey; one third of these reported that all of their current production was for war work or was being done under high priority ratings. All but 4 were operating either two or three shifts during the spring of 1942.

Employment in these plants more than doubled between August 1939 and the period of the present survey, and estimated average hourly earnings (exclusive of extra payments for overtime) increased from 69.7 cents in August 1939 to 83.9 cents in the spring of 1942. Plants situated in the more densely populated areas paid an average of about 15 cents per hour more than the plants in the smaller communities.

Scope and Method of Survey

In order to provide basic information on the effects of the transition to a war economy on technological processes, occupational patterns, and wage structures, the Bureau of Labor Statistics has undertaken a series of studies in establishments manufacturing various types of machinery and similar products. Each of the industrial branches covered in this series is defined in terms of the principal products of the various plants during the year 1939 as reported by the Census of Manufactures. Important changes in type of product are to be expected, especially because the war emergency has accentuated the shifts in production that would ordinarily occur over a 3-year period. The data on these changes are, however, in themselves significant, and it is thus useful to begin with the 1939 classification as a starting point in order to determine their nature.

According to the Census of Manufactures there were 74 plants engaged primarily in the manufacture of internal-combustion engines in 1939. Seven of the 74 plants employed fewer than 6 wage earners and were excluded from the present survey. Of the remaining 67 plants, data were obtained for 21. The sample of plants was selected as far as possible to be representative of the industry as a whole with respect to location, size of plant in terms of number of employees, and other characteristics.

The data were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent

[1] Prepared in the Bureau's Division of Wage Analysis by George E. Votava. The study was directed and the preparation of the report supervised by Harold R. Hosea. Previous articles of this series appeared in the Monthly Labor Review, issues of May, June, July, August, September, and October 1942.

records. The detailed wage data on individual employees are limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, however, occupational earnings rates were compiled for 80 to 90 percent of the wage earners on first (day) shifts. The earnings data shown in this report are based on a representative pay-roll period during March, April, or May 1942.

Characteristics of the Industry

Type of product.—This industry, as defined by the Census of Manufactures, includes establishments engaged primarily in the production of internal-combustion engines (except for aircraft and motor vehicles) including Diesel and semi-Diesel types. The importance of engines in modern warfare obviously precludes any wholesale conversion of the plants in this industry to the manufacture of other products.

Geographic distribution.—Nearly three-fifths of the plants in this industry are in the States of Wisconsin, New York, Ohio, Michigan, and Pennsylvania. Fourteen (nearly 15 percent of the total) are in Wisconsin, and these plants employed over a third of the workers in this industry according to the latest Census. Another fifth of the plants are in California and Missouri, and the rest are scattered through 7 North Central and Eastern States. The geographic distribution of the plants and wage earners included in this survey corresponds closely to that shown by the Census.

The labor supply.—Of the total workers for whom detailed earnings data were compiled, it is estimated that about 30 percent were working at skilled jobs, 47 percent semiskilled, and 23 percent unskilled.

All but 1 of the 15 plants employing 200 or more workers were operating under agreements with unions; only 2 of the 6 plants employing 200 workers or less reported such agreements. Thirteen of these 16 union agreements were with nationally affiliated unions.

Only three of the plants studied employed women, and, of these, only two reported substantial numbers. Women were employed principally as bench assemblers, inspectors, clerks, winders, and operators of miscellaneous small machines.

Negroes were employed in five of the plants studied, but they constituted less than 1 percent of the total employment in three of these five plants, and 3 and 11 percent, respectively, in the remaining two.

Method of wage payment.—Incentive methods of wage payment were in effect in 8 of the 21 plants studied and nearly half of the workers in these 8 plants, or 25 percent of the workers in the plants studied, were paid on this basis.

All of the plants studied paid time and a half for all work over 40 hours per week, and 18 also applied this rate after 8 hours per day. This same rate was paid for all Saturday and Sunday work in 6 of the plants. In 10 plants double time was paid for all Sunday work.

Seventeen of the 21 plants included in the survey were operating more than 1 shift at the time they were studied; 5 were on a 2-shift schedule, and 12 were running 3 shifts (table 1). Four of these plants paid no differential rate for second- or third-shift work. Among the remaining 13 plants, the second-shift differentials ranged from 2.5 to 10 cents per hour and those for the third shift from 5 cents per hour

to 15 percent above the base rate. The most common differential in use for second- and third-shift workers was 5 cents per hour.

TABLE 1.—*Wage Scales for Second and Third Shifts in Plants Manufacturing Internal-Combustion Engines, March–May 1942*

Type of plant	Number of plants	Differential paid for—	
		Second shift	Third shift
Plants with 1 shift only	4		
Plants with 2 shifts	2	No differential	
	1	2.5 cents per hour	
	1	3 cents per hour	
	1	5 cents per hour	
Plants with 3 shifts	2	No differential	No differential.
	4	5 cents per hour	5 cents per hour.
	2	10 percent over base rate	15 percent over base rate.
	1	3 cents per hour	5 cents per hour.
	1	10 cents per hour	10 cents per hour.
	1	10 percent over base rate, machine shop; 5 percent over base rate, foundry.	10 percent over base rate, machine shop; 5 percent over base rate, foundry.
	1	10 percent over base rate	10 percent over base rate.

Hourly Earnings and Weekly Hours

TREND, 1939 TO 1942

Average hourly earnings in the 21 plants covered in this survey increased about 23 cents between August 1939 and the spring of 1942 (table 2). A substantial part of this difference was due to extra payments for overtime work; the average workweek increased from 36.6 to 49.7 hours during this same period. It is estimated that regular earnings, excluding extra payments for overtime, amounted to about 69.7 cents per hour in August 1939 and 83.9 cents in March–May 1942—an actual increase of about 14.2 cents.

TABLE 2.—*Average Hourly Earnings and Average Weekly Hours of Workers in 21 Internal-Combustion Engine Plants for Specified Periods, 1939–42*[1]

Year and month	Average hourly earnings [2]	Estimated average hourly earnings exclusive of extra overtime earnings	Average weekly hours
August 1939	$0.705	$0.697	36.6
April 1940	.732	.697	42.8
August 1940	.733	.698	42.8
February 1941	.768	.704	47.2
August 1941	.852	.791	45.7
March–May 1942	.933	.839	49.7

[1] The data for 1 company were used with reduced weight in order to avoid overrepresentation of large plants.

[2] Averages include earnings resulting from extra payments for overtime and shift differentials.

One-third (7) of the plants surveyed showed current average hourly earnings, including extra payments for overtime, of $1.00 or more per hour, while the averages for 4 were below 70 cents. One-third of the plants included in the survey averaged between 80 and 90 cents per hour.

OCCUPATIONAL DIFFERENCES

Hourly earnings for individual occupations (excluding apprentices) in the manufacture of internal-combustion engines ranged from $1.347 for class A drop-hammer operators to 59.8 cents for class C chippers (table 3). More than 20 percent of the male workers were classified in occupational groups which showed averages of $1.00 or more per hour. On the other hand, only 14 percent (excluding learners and apprentices) of the workers were classified in occupational groups which showed averages below 70 cents per hour. The numbers of women employed are too small to justify the computation of occupational averages; their combined average was 60.1 cents per hour.

TABLE 3.—*Average Hourly Earnings* [1] *on Day Shift, in Selected Occupations in Internal-Combustion Engine Plants, by Size of Community, March–May 1942*

Occupation and class	Total plants		Plants in communities with population of—			
			Under 500,000		500,000 or over	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
All workers	100.0	$0.840	100.0	$0.802	100.0	$0.954
Total, males	99.1	.842	98.9	.804	99.6	.955
Acetylene-burner operators	.1	(2)	.1	(2)		
Apprentices, first year	1.0	.404	1.1	.364	.9	.546
Apprentices, second year	.7	.507	.7	.453	.6	.694
Apprentices, third year	.7	.556	.8	.547	.1	(2)
Apprentices, fourth year	.9	.716	1.1	.717	.1	(2)
Assemblers, bench, class A	1.7	1.036	1.3	.988	2.9	1.100
Assemblers, bench, class B	4.7	.964	3.0	.895	9.5	1.032
Assemblers, bench, class C	2.1	.785	1.5	.700	3.4	.895
Assemblers, floor, class A	1.6	1.083	1.4	1.033	2.1	1.185
Assemblers, floor, class B	1.6	.900	2.0	.899	.4	.914
Assemblers, floor, class C	1.7	.771	2.0	.751	.9	.901
Balancing-machine operators	.1	.948	.1	.948		
Blacksmiths	.2	.891	.2	.852	.1	(2)
Boring-mill operators, class A	1.6	1.057	1.4	1.012	2.2	1.140
Boring-mill operators, class B	1.4	.874	1.6	.828	1.0	(2)
Broaching-machine operators	.1	.761	.2	.749	(2)	(2)
Buffers	.1	(2)	.1	(2)		
Bulldozer operators	.1	1.124	.1	1.144	(2)	(2)
Burrers	.3	.784	.2	.722	.3	.943
Carpenters, class A	.1	.867	.2	.805	.1	(2)
Carpenters, class B	.3	.850	.1	(2)	.8	.869
Carpenters, class C	.2	.757	.1	.772	.3	(2)
Carpenters, flask	.1	.758	.2	.758	(2)	(2)
Casting cleaners	1.3	.751	1.6	.755	.3	(2)
Chippers, class B	.5	.673	.6	.662	.2	(2)
Chippers, class C	.7	.598	.8	.571	.6	(2)
Coremakers, class A	.9	.985	1.0	.969	.6	1.076
Coremakers, class B	.5	.887	.7	.887		
Coremakers' helpers	.3	.674	.3	.677	.2	(2)
Corepasters	.5	.904	.6	.904		
Crane followers	.4	.719	.5	.689	.3	(2)
Crane operators	1.5	.767	1.7	.753	1.0	.849
Craters	.5	.796	.6	.789	.1	(2)
Cupola tenders	.1	.776	.1	.759	.1	(2)
Cupola tenders' helpers	.2	.664	.3	.664	.1	(2)
Drill-press operators, class A	2.4	1.006	1.7	.980	4.0	1.040
Drill-press operators, class B	3.0	.850	3.4	.832	1.6	.970
Drill-press operators, class C	1.5	.866	1.3	.846	2.1	.902
Drop-hammer operators, class A	.1	1.347	.1	(2)	.1	(2)
Electricians	.6	.873	.6	.826	.6	1.025

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings*[1] *on Day Shift, in Selected Occupations in Internal-Combustion Engine Plants, by Size of Community, March–May 1942*—Continued

Occupation and class	Total plants		Plants in communities with population of—			
			Under 500,000		500,000 or over	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
Firemen, stationary boiler	0.4	$0.712	0.5	$0.685	0.3	(2)
Flask and pattern carriers	.2	.657	.3	.657		
Foremen, working, class A	.7	1.225	.8	1.195	.5	$1.388
Foremen, working, class B	.3	.982	.4	.968	.1	(2)
Foremen, working, class C	.3	.897	.4	.895	.1	(2)
Gear cutters, class A	.1	1.042	(2)	(2)	.5	1.026
Grinding-machine operators, class A	1.2	1.090	1.0	1.033	1.7	1.193
Grinding-machine operators, class B	1.4	.837	1.6	.806	.8	1.036
Heat treaters, class A	.1	.990	.1	.903	.2	(2)
Heat treaters, class B	.2	.720	.2	.720		
Helpers, journeymen	.8	.698	.8	.659	.9	.804
Helpers, machine operators	.8	.725	.5	.630	1.8	.805
Inspectors, class A	.9	1.072	.9	.959	1.1	1.353
Inspectors, class B	2.1	.914	1.8	.862	3.0	1.012
Inspectors, class C	1.0	.705	1.1	.676	.8	.833
Janitors	1.4	.642	1.4	.620	1.4	.715
Job setters	.4	1.008	.4	.982	.4	1.090
Laborers	3.6	.650	3.6	.623	3.1	.743
Laborers, foundry	1.4	.620	1.6	.616	.8	.650
Lathe operators, engine, class A	2.3	1.065	2.0	1.014	3.1	1.170
Lathe operators, engine, class B	2.0	.857	2.3	.842	1.2	.944
Lathe operators, engine, class C	.3	.837	.4	.838	(2)	(2)
Lathe operators, turret, class A	1.2	1.070	1.0	.988	1.7	1.219
Lathe operators, turret, class B	2.9	.840	3.3	.829	1.8	.902
Lay-out men, class A	.3	.991	.2	.970	.6	1.013
Lay-out men, class B	.2	.866	.2	.866		
Learners, machine operators	1.6	.644	1.3	.574	2.4	.760
Learners, other	.6	.645	.8	.636	.1	(2)
Machinists, class A	.1	1.038	.2	.999	.1	(2)
Machinists, class B	.2	.851	.3	.838	.1	(2)
Metal-saw operators	.2	.820	.2	.804	.2	(2)
Milling-machine operators, class A	1.5	1.036	1.1	1.008	2.6	1.072
Milling-machine operators, class B	1.8	.872	2.1	.865	.7	.931
Millwrights	.5	.869	.5	.848	.5	.939
Molders, bench	.2	.875	.3	.874	(2)	(2)
Molders, floor	1.6	.980	1.8	.967	.8	1.075
Molders' helpers	1.0	.721	1.0	.739	.9	(2)
Molders, machine, class A	.4	1.053	.6	1.053		
Molders, machine, class B	.2	.789	.3	.789		
Packers	.4	.737	.3	.732	.5	.744
Painters, brush	.3	.693	.4	.675	.1	(2)
Painters, spray	.6	.864	.6	.826	.6	.973
Patternmakers, metal	.1	1.071	.2	1.071		
Patternmakers, wood	.8	1.110	.8	1.038	.8	1.344
Pipefitters	.4	.883	.4	.843	.4	1.004
Planer operators	.4	.977	.4	.904	.6	1.133
Pourers, class B	.1	(2)	.2	(2)		
Punch-press operators, class A	.1	.992	.1	.992		
Punch-press operators, class B	.1	(2)	.1	(2)		
Punch-press operators, class C	.1	.817	.2	.817		
Repairmen, machine	.9	.924	.8	.901	1.4	.960
Sandblasters	.1	.727	.2	.727		
Sand mixers, machine	.3	.642	.3	.637	.2	(2)
Screw-machine operators, class A	.6	1.023	.7	1.019	.3	1.053
Screw-machine operators, class B	.6	.897	.5	.873	.8	.945
Screw-machine operators, class C	.2	.738	.2	.701	.2	(2)
Shake-out men	.9	.677	1.0	.679	.5	(2)
Shaper operators	.2	.974	.2	.985	.2	(2)
Sheet-metal workers, class A	.1	.898	.1	(2)	.1	(2)
Sheet-metal workers, class B	.3	.867	.4	.856	.2	(2)

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings*[1] *on Day Shift, in Selected Occupations in Internal-Combustion Engine Plants, by Size of Community, March–May 1942*—Continued

Occupation and class	Total plants		Plants in communities with population of—			
			Under 500,000		500,000 or over	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
Stock clerks	6.0	$0.711	5.7	$0.692	6.9	$0.759
Testers, class A	1.3	1.039	.7	.990	3.1	1.072
Testers, class B	1.0	.829	1.2	.811	.5	.971
Testers, class C	1.0	.727	1.1	.703	.5	.878
Thread-milling-machine operators	.1	1.064	.1	1.002	.3	1.135
Time clerks	1.7	.699	1.6	.703	1.9	.688
Tool and die makers	.9	1.089	.7	1.032	1.7	1.157
Tool-grinder operators	.9	.862	.8	.808	1.3	.961
Truck drivers	.5	.727	.2	.708	1.4	.737
Truckers, hand	1.9	.651	2.4	.643	.3	(2)
Truckers, power, inside	.2	.699	.3	.692	(2)	(2)
Watchmen	1.8	.721	1.8	.691	1.9	.810
Welders, hand, class A	.4	1.001	.3	.935	.4	1.154
Welders, hand, class B	.7	.781	.9	.767	.2	(2)
Winders, class B	.1	(2)	.2	(2)		
Winders, class C	.1	(2)	.1	(2)		
Woodworkers	.1	.870	(3)	(2)	.4	(2)
Total, females	.9	.601	1.1	(2)	.4	(2)

[1] Averages are based on actual earnings exclusive of extra payments for overtime.
[2] Number of plants and/or workers too small to justify computation of an average.
[3] Less than a tenth of 1 percent.

Any regional differences in wage levels which may exist in this industry cannot be analyzed on the basis of the data available. Plant-to-plant differences in unionization, method of wage payment, and other factors which affect wage levels are sufficiently important to obscure any such regional differences. Earnings in these plants did, however, appear to have a definite relationship to the size of the communities in which the several plants are situated. The general average for the larger communities was more than 15 cents above that for the smaller places. This difference in average hourly earnings was apparently offset in part by the fact that the plants in the smaller communities were considerably larger than the plants in the larger cities. On the other hand, this difference would be somewhat reduced if the effects of differences in unionization and region could be taken into account; union agreements were found more frequently in the larger cities. It is not possible, on the basis of the data available, to determine the net effect of these factors on earnings levels.

EARNINGS IN MANUFACTURE OF TRACTORS, 1942[1]

Summary

THIS survey of earnings in tractor-manufacturing plants is the ninth in the series conducted by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on various branches of the machinery industry.

The study is based on data from 10 establishments, or about a third of the total reported by the latest Census of Manufactures. Six of the 10 plants included in the survey reported that over 50 percent of their production was for defense purposes during the first quarter of 1942. Of these, 3 plants classified their production as direct war materials.

Average hourly earnings increased from 79.3 cents in August 1939 to $1.040 by the spring of 1942. However, these earnings were affected by the increase in the average workweek, which showed a rise of about 10 hours since August 1939; the actual increase in rates is estimated to be about 17 cents per hour.

Approximately 47 percent of the male workers for whom detailed earnings data were compiled were classified in the 60 occupations which showed average earnings of $1.00 or more per hour. Apprentices constituted the only occupational group with an average below 60 cents per hour.

Scope of Survey[2]

There were 30 plants in the United States manufacturing tractors, according to the 1939 Census of Manufactures. Of these, 3 reported fewer than 6 wage earners and were excluded from the scope of this survey. The remaining 27 plants employed an annual average of 31,271 workers, and approximately 30 percent were working in the 10 establishments included in this survey.

The data for the present survey were collected by field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage data on individual employees are limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, however, occupational earnings rates were compiled for 80 to 90 percent of the wage earners on first (day) shifts. All of the current earnings data shown in this report are based on a representative pay-roll period during April, May, or June 1942.

Characteristics of the Industry

This industry, as classified for Census purposes, includes establishments engaged primarily in the manufacture of agricultural tractors, those used on construction work, and industrial tractors. Slightly less than three-fourths of the plants and nearly 98 percent of the workers in this industry are in the North Central area; in fact, approximately two-fifths of the plants and more than three-fourths of the

[1] Prepared in the Bureau's Division of Wage Analysis by Virginia L. Amonette. The study was directed and the preparation of the report supervised by Harold R. Hosea. Previous articles of this series appeared in the Monthly Labor Review, issues of May, June, July, August, September, and October 1942.

[2] Additional details on the scope of this survey may be found in the article "Earnings in the Manufacture of Internal-Combustion Engines, 1942," which appears elsewhere in this issue.

workers in the total industry were in the two States of Illinois and Wisconsin in 1939. The remaining establishments (slightly more than one-fourth of the total) are scattered through the Middle Atlantic and Western States, with about 13 percent in each of these regions. The plants and employees included in the present survey are distrib uted in approximately the same manner.

Production of war materials.—The majority of the plants in the tractor industry did not report any production of materials directly connected with the defense program before the latter part of 1941. By that time, 9 plants reported the production of defense materials, and 4 of the 9 were manufacturing direct war materials.

By the first quarter of 1942, 6 of the 10 plants included in this survey reported more than 50 percent of their sales as defense materials; of these, 3 plants reported their principal products as direct war materials. Of the remaining 4 plants, 3 were devoting less than 50 percent of their facilities to the war effort, and one plant reported no direct defense production at all. The extent to which tractors are used in essential civilian activities as well as indirectly in the war effort makes wholesale conversion of this industry unlikely.

A limited amount of plant conversion to the manufacture of products for which they were not formerly equipped did, however, take place in 4 of the 10 plants studied. Three of these plants reported the purchase of new machinery, and, of these, 2 had constructed additional building space. Data on the nature of technological changes in the fourth plant are not available.

The labor supply.—Of the male workers for whom detailed earnings data were compiled, about 38 percent were classified as skilled workers. Semiskilled workers made up approximately 39 percent of the total, and the remaining 23 percent were reported as unskilled.

The employment of women, exclusive of central-office personnel, is rare among these companies. Only 2 of the 10 plants employed women and the total was very small; most of them were coremakers.

Six of the plants employed Negro workers who constituted a little more than a half of 1 percent of the total workers reported by the 10 plants; 4 plants employed none at all. Most of the Negro workers were engaged as laborers, shake-out men, and pourers.

Of the 10 plants, 5 had agreements with nationally affiliated labor unions, and 2 more were operating under agreements with independent labor unions. In all cases except one, the union agreements were found in the larger plants, i. e., those employing more than 500 workers. The one organized plant which had fewer than 500 workers was one of the establishments which had an agreement with an independent union.

Method of wage payment.—Only the larger plants studied (those employing 500 workers or over) made use of incentive methods of wage payment. In 6 of the 10 plants studied, incentive systems were in effect, and nearly 50 percent of the employees in these 6 plants were paid on this basis. These workers amounted to about 42 percent of the total studied.

All the plants paid time and a half for all work above 40 hours a week, and 9 applied this rate to any work over 8 hours a day. Three plants also paid this rate for all work on Sunday, and 2 of these applied the rate to holiday work as well. Double time was in effect in 6

plants; one plant paid double time for all work on Sunday, and the other 5 applied this same rate for both Sunday and holiday work.

Three plants paid no premiums for work on the evening or night shift, although all the plants except one were operating 3 shifts (table 1). The other 6 plants operating 3 shifts paid differentials ranging from 3 to 10 cents an hour, and 2 paid higher rates for work on the third or night shift than those which applied to the second or evening shift.

TABLE 1.—*Wage Scales for Second and Third Shifts in Tractor Plants, April–June 1942*

Type of plant	Number of plants	Differential paid for—	
		Second shift	Third shift
Plants with 2 shifts	1	5 cents per hour	
Plants with 3 shifts	3	No differential	No differential.
	1	3 cents per hour	3 cents per hour.
	1	do	4 cents per hour.
	1	do	5 cents per hour.
	2	5 cents per hour	Do.
	1	10 cents per hour	10 cents per hour.

Hourly Earnings and Weekly Hours

TREND, 1939 TO 1942

Employment in the plants included in this survey increased by nearly 60 percent between August 1939 and the spring of 1942. Hourly earnings, including extra payments for overtime work, averaged 79.3 cents in August 1939, but at the time the present survey was made, they had risen to $1.040 (table 2). However, when the continued rise in the length of the average workweek is considered, the increase in average hourly earnings is somewhat lessened because of the exclusion of payments for overtime work. It is estimated that the elimination of such amounts would reduce the average hourly earnings for the latest period to 95.7 cents; on this basis it appears that the rise in wage rates between August 1939 and the spring of 1942 amounts to about 17 cents, or slightly more than 20 percent.

TABLE 2.—*Average Hourly Earnings and Average Weekly Hours of Workers in 10 Tractor Plants for Selected Periods, 1939–42*

Year and month	Average hourly earnings	Estimated average hourly earnings exclusive of extra overtime earnings	Average weekly hours
August 1939	$0.793	$0.784	36.5
April 1940	.834	.811	39.9
August 1940	.791	.779	37.8
February 1941	.858	.842	38.3
August 1941	.931	.904	40.3
April–June 1942	1.040	.957	46.7

PLANT AVERAGES

All but 3 of the plants surveyed showed average hourly earnings, including extra overtime payments, between 95 cents and $1.20.

Four plants in this category paid earnings which averaged above $1.05. Of the 3 plants with averages below 95 cents, one was between 80 and 85 cents, and the other two plants between 60 and 70 cents. The plants which averaged more than 95 cents were found in every case except one to be the larger plants (those employing over 500 workers), and 2 of the 3 plants paying average hourly earnings below 95 cents employed fewer than 500 workers.

The numbers and characteristics of the plants and workers studied are insufficient to warrant regional comparisons of average hourly earnings. As mentioned above, the industry is highly concentrated in the North Central area, with only a few plants in other areas.

OCCUPATIONAL DIFFERENCES

Sixty occupational groups for which detailed earnings data were collected averaged $1.00 or more per hour, exclusive of overtime and shift premiums. These groups include about 47 percent of the total employees for whom detailed data were compiled. In this group, hand coremakers, whose earnings averaged $1.219 per hour, were the highest paid (table 3). The average hourly earnings of the entire group of workers for whom detailed data were compiled amounted to 95.7 cents per hour. This relatively high level of earnings undoubtedly reflects the fact that bonus and piece-work systems were in effect in all of the larger plants studied. In fact, more than two-fifths of all the workers studied were paid under an incentive system.

TABLE 3.—*Average Hourly Earnings [1] of Male Day-Shift Workers in Selected Occupations in Tractor Plants, 1942*

Occupation and class	Percent of workers	Average hourly earnings	Occupation and class	Percent of workers	Average hourly earnings
All male workers	100.0	$0.957	Cupola tenders	0.1	$1.092
			Cupola tenders' helpers	.2	1.070
Acetylene-burner operators	.2	.856	Drill-press operators, class A	2.8	1.075
Apprentices, first year	.2	.512	Drill-press operators, class B	1.9	1.011
Apprentices, second year	(2)	(2)	Drill-press operators, class C	2.5	.989
Apprentices, third year	.1	.702	Electricians	1.0	1.060
Apprentices, fourth year	.1	.809	Elevator operators	.1	.741
Assemblers, bench, class A	.8	1.009	Firemen, stationary boiler	.2	.903
Assemblers, bench, class B	1.0	.947	Foremen, working	1.7	1.042
Assemblers, bench, class C	.1	.898	Gear cutters, class A	.7	1.106
Assemblers, floor, class A	2.9	1.059	Gear cutters, class B	.9	1.080
Assemblers, floor, class B	.8	.929	Gear finishers	.3	1.045
Assemblers, floor, class C	1.3	.962	Grinding-machine operators, class A	2.0	1.145
Balancing-machine operators	.1	1.137			
Blacksmiths	.1	1.000	Grinding-machine operators, class B	.8	1.047
Boring-mill operators, class A	1.1	1.117			
Boring-mill operators, class B	.2	1.084	Grinding-machine operators, class C	.1	.922
Broaching-machine operators	.6	.998			
Buffers	.2	.916	Heat treaters, class A	1.1	.985
Bulldozer operators	.1	1.154	Heat treaters, class B	.7	.893
Burrers, class B	.3	1.041	Helpers, journeymen	1.1	.714
Burrers, class C	.3	.944	Helpers, machine operators	.4	.861
Carpenters, class A	.2	1.007	Inspectors, class A	1.8	1.048
Carpenters, class B	.5	.917	Inspectors, class B	1.6	.937
Carpenters, class C	.1	.797	Inspectors, class C	2.5	.861
Casting cleaners	.2	1.135	Janitors	1.6	.733
Chippers, class B	.8	1.195	Job setters	.6	1.099
Chippers, class C	.1	.888	Laborers	7.2	.732
Coremakers, hand	1.4	1.219	Laborers, foundry	2.4	.827
Coremakers, machine	.2	(3)	Ladle liners	.1	.931
Coremakers' helpers	.1	(3)	Lathe operators, engine, class A	1.4	1.161
Corepasters	.4	1.179	Lathe operators, engine, class B	1.9	1.060
Crane operators	.6	.911	Lathe operators, engine, class C	.3	.932
Craters	.2	.921	Lathe operators, turret, class A	2.6	1.103

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings*[1] *of Male Day-Shift Workers in Selected Occupations in Tractor Plants, 1942*—Continued

Occupation and class	Percent of workers	Average hourly earnings	Occupation and class	Percent of workers	Average hourly earnings
Lathe operators, turret, class B	1.6	$1.045	Punch-press operators, class C	0.3	$1.024
Lathe operators, turret, class C	.4	.886	Repairmen, machine	2.4	1.013
Lay-out men, class A	.2	.986	Repairmen, product	.5	1.000
Lay-out men, class B	.1	.952	Riveters, pneumatic	.1	.938
Learners, journeymen	.2	.771	Sandblasters	.3	.912
Learners, machine operators	1.8	.605	Sand mixers, machine	.2	1.147
Learners, other	1.7	.685	Screw-machine operators, class A	.1	1.143
Machinists, class A	.2	1.063	Screw-machine operators, class B	.2	1.141
Machine operators, all-round	.4	.870	Screw-machine operators, class C	.1	.918
Metal-saw operators	.2	1.002	Shake-out men	.6	1.056
Milling-machine operators, class A	1.3	1.102	Sheet-metal workers, class A	.3	1.030
Milling-machine operators, class B	1.8	.972	Sheet-metal workers, class B	.2	.921
Milling-machine operators, class C	.2	(3)	Solderers, class B	.1	1.147
Millwrights	.9	.993	Solderers, class C	.1	(3)
Molders, bench	.4	1.187	Stock clerks	4.9	.806
Molders, floor	.8	1.069	Straighteners	.3	1.154
Molders' helpers	.2	1.019	Testers, class A	.4	1.078
Molders, machine	.9	1.177	Testers, class B	.2	1.077
Packers	1.1	.817	Testers, class C	.3	.921
Painters, brush	.3	.770	Thread-milling-machine operators	.2	1.049
Painters, dip	.1	.967	Time clerks	1.1	.711
Painters, spray	.7	1.078	Tool and die makers	2.1	1.143
Patternmakers, metal	.4	1.195	Tool grinder operators	1.4	.984
Patternmakers, wood	.2	1.154	Truck drivers	.2	.883
Pipefitters	.3	.997	Truckers, hand	2.2	.763
Planer operators	.1	.883	Truckers, power, inside	1.7	.847
Platers	.1	.979	Tumbler operators	.3	1.128
Pourers, class B	.4	.960	Upsetters	.1	1.144
Power-shear operators	.2	1.069	Watchmen	1.4	.795
Punch-press operators, class B	.6	1.044	Welders, hand, class A	1.0	1.143
			Welders, hand, class B	.7	.982
			Welders, machine	.3	1.065

[1] Exclusive of extra payments for overtime work.
[2] Less than a tenth of 1 percent.
[3] Number of workers and/or plants insufficient to justify computation of an average.

With the exception of first-year apprentices, none of the occupational group averages was below 60 cents per hour. Only two groups, machine-operator learners and other learners, who averaged 60.5 and 68.5 cents, respectively, showed averages below 70 cents. Eleven occupational groups, which included less than 16 percent of the total workers, were classified in occupations averaging between 70 and 80 cents per hour. The most important of these, numerically, were laborers, hand truckers, janitors, watchmen, and journeymen helpers. The number of female workers is insufficient to justify the computation of occupational averages.

ELIMINATION OF OVERTIME PAYMENTS FROM GROSS HOURLY EARNINGS

THE attention of policy-making officials in both industry and government has recently been turned to the question of wages, with an increasing sense of its importance. A large body of statistics has been established relating to the average hourly earnings of workers in the various industries and areas. Most of the available statistics dealing with hourly earnings, however, reflect the influence of overtime work at premium rates—usually time and a half. The inclusion of this extra compensation interferes with comparisons made between the hourly earnings of groups of wage earners who may be working different amounts of overtime. It also prevents an accurate measurement of the extent of wage changes from one period to another.

In an effort to increase the usefulness of current data on gross average hourly earnings, the Bureau has developed a table of adjustment factors which permits elimination of premium overtime payments on an estimated basis. The correction which may be accomplished by use of these factors is recognized to be only approximate and use of the factors is subject to numerous limitations, the most important of which are indicated below. Despite these shortcomings, the factors are believed to constitute a useful tool, and are therefore made available for general use in the accompanying table.

Method of Use

Use of the table assumes that the average weekly hours of work during the period represented by the average hourly earnings is known. The steps to be taken in making the adjustment are as follows: (1) In the column headed "Average weekly hours" find the average hours for the period being studied, and (2) multiply the gross average hourly earnings figure by the adjustment factor opposite this average of weekly hours. Example: In February 1942 the aircraft industry had average weekly hours of work of 47.7 and average hourly earnings of 94.8 cents. Inspection of the table reveals that the adjustment factor for 47.7 hours is 0.916. This ratio multiplied by 94.8 cents yields 86.8 cents, the estimated hourly earnings corrected to eliminate premium overtime pay.

Basis of Adjustment Factors

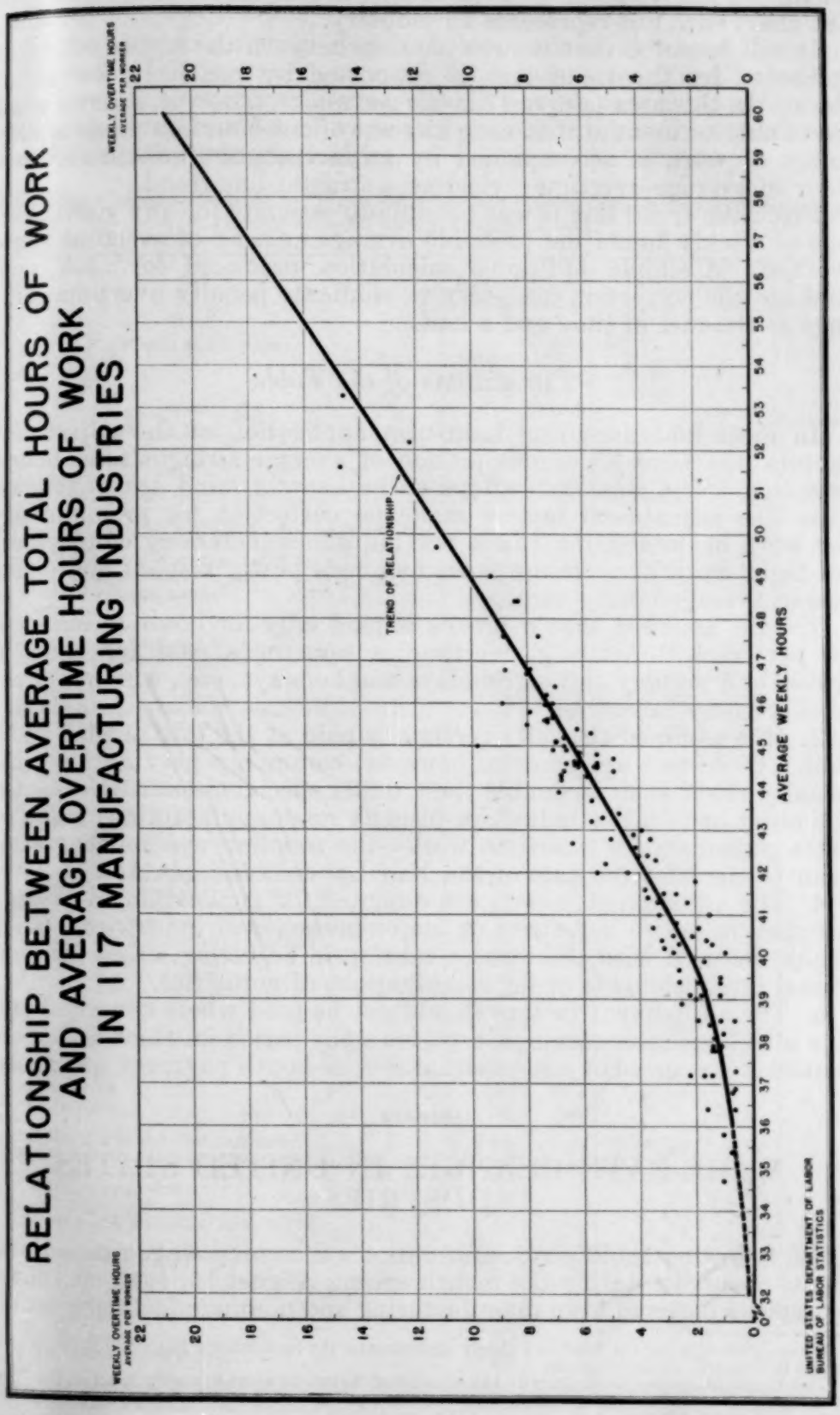
The table is based on an analysis of the hours of work in 117 manufacturing industries and industry branches.[1] The primary data were taken from the files of the Bureau of Labor Statistics. Two elements were determined for each of the industries and branches studied—the average weekly hours of work per employee at the time of study, and the average number of weekly overtime hours worked per employee during the same period. As would be expected, these values were

[1] This analysis was made in the Division of Wage Analysis by Louis M. Solomon, assisted by Toivo P. Kanninen and Joseph M. Sherman.

Adjustment Factors for Eliminating Premium Overtime Payments from Gross Average Hourly Earnings

Average weekly hours [1]	Adjustment factor	Average weekly hours	Adjustment factor	Average weekly hours	Adjustment factor	Average weekly hours	Adjustment factor
36.0	0.990	42.0	0.957	48.0	0.913	54.0	0.878
.1	.989	.1	.956	.1	.913	.1	.878
.2	.989	.2	.955	.2	.912	.2	.877
.3	.989	.3	.954	.3	.912	.3	.877
.4	.988	.4	.953	.4	.911	.4	.876
.5	.988	.5	.952	.5	.910	.5	.876
.6	.988	.6	.952	.6	.910	.6	.875
.7	.988	.7	.951	.7	.909	.7	.875
.8	.987	.8	.950	.8	.909	.8	.874
.9	.987	.9	.949	.9	.908	.9	.874
37.0	.987	43.0	.948	49.0	.907	55.0	.873
.1	.987	.1	.947	.1	.906	.1	.873
.2	.986	.2	.946	.2	.905	.2	.872
.3	.986	.3	.945	.3	.904	.3	.872
.4	.986	.4	.945	.4	.904	.4	.871
.5	.985	.5	.944	.5	.903	.5	.871
.6	.985	.6	.944	.6	.902	.6	.870
.7	.985	.7	.943	.7	.902	.7	.870
.8	.984	.8	.942	.8	.901	.8	.869
.9	.984	.9	.941	.9	.901	.9	.869
38.0	984	44.0	.941	50.0	.900	56.0	.868
.1	.984	.1	.940	.1	.900	.1	.868
.2	.983	.2	.940	.2	.899	.2	.867
.3	.983	.3	.939	.3	.899	.3	.867
.4	.982	.4	.938	.4	.898	.4	.866
.5	.982	.5	.937	.5	.898	.5	.866
.6	.981	.6	.936	.6	.897	.6	.865
.7	.981	.7	.935	.7	.896	.7	.865
.8	.981	.8	.934	.8	.896	.8	.864
.9	.980	.9	.933	.9	.895	.9	.864
39.0	.980	45.0	.933	51.0	.895	57.0	.864
.1	.979	.1	.932	.1	.894	.1	.863
.2	.979	.2	.932	.2	.894	.2	.863
.3	.978	.3	.931	.3	.893	.3	.862
.4	.978	.4	.930	.4	.892	.4	.862
.5	.977	.5	.930	.5	.892	.5	.861
.6	.977	.6	.929	.6	.891	.6	.861
.7	.976	.7	.929	.7	.891	.7	.860
.8	.975	.8	.928	.8	.890	.8	.860
.9	.974	.9	.927	.9	.889	.9	.859
40.0	.973	46.0	.926	52.0	.889	58.0	.859
.1	.972	.1	.926	.1	.888	.1	.859
.2	.971	.2	.925	.2	.888	.2	.858
.3	.970	.3	.925	.3	.887	.3	.858
.4	.969	.4	.924	.4	.887	.4	.857
.5	.969	.5	.923	.5	.886	.5	.857
.6	.968	.6	.923	.6	.886	.6	.857
.7	.968	.7	.922	.7	.885	.7	.856
.8	.967	.8	.921	.8	.885	.8	.856
.9	.966	.9	.921	.9	.884	.9	.856
41.0	.965	47.0	.920	53.0	.883	59.0	.855
.1	.964	.1	.919	.1	.883	.1	.855
.2	.963	.2	.919	.2	.882	.2	.854
.3	.962	.3	.918	.3	.882	.3	.854
.4	.961	.4	.917	.4	.881	.4	.853
.5	.961	.5	.917	.5	.881	.5	.853
.6	.960	.6	.916	.6	.880	.6	.853
.7	.959	.7	.916	.7	.880	.7	.852
.8	.958	.8	.915	.8	.879	.8	.852
.9	.957	.9	.914	.9	.879	.9	.851
						60.0	.851

[1] For practical purposes, premium overtime payments in industries averaging less than 36 hours a week may usually be ignored.


RELATIONSHIP BETWEEN AVERAGE TOTAL HOURS OF WORK AND AVERAGE OVERTIME HOURS OF WORK IN 117 MANUFACTURING INDUSTRIES
WEEKLY OVERTIME HOURS AVERAGE PER WORKER
TREND OF RELATIONSHIP
AVERAGE WEEKLY HOURS
UNITED STATES DEPARTMENT OF LABOR BUREAU OF LABOR STATISTICS

found to be closely related, and a "scatter" diagram prepared from them (see chart) permitted the establishment of the trend line.[2] In the chart each dot represents an industry.

It will be noted that the relationship between the higher values, as indicated by the trend line, is supported by relatively few actual data. In this area (above 47 hours per week), however, it has seemed justifiable to assume that each increase of one hour in average weekly hours of work is accompanied by an increase of approximately one hour in average overtime—yielding a straight-line trend.

From the trend line it was possible to estimate for any given average of weekly hours the probable average number of overtime hours worked. A simple additional calculation produced for each such average the correction necessary to eliminate penalty overtime earnings at the rate of time and a half.

Limitations of the Table

In most manufacturing industries application of the adjustment factors will yield an approximation of average straight-time hourly earnings. The chief limitations to be kept in mind are as follows:

1. The adjustment factors make no correction for premium pay for work on late shifts. In a few industries increasing employment on night work at premium rates has been partly responsible for the rise in average hourly earnings.

2. It is assumed that overtime is paid only for hours in excess of 40 per week.[3] Actually, overtime is sometimes paid for hours in excess of 8 per day and on Sundays and holidays, etc., whether or not weekly hours exceed 40.

3. It is assumed that all overtime is paid at the rate of time and a half. Collective agreements, however, commonly provide for other penalty rates, such as double time, under special circumstances. On the other hand a few industries (usually nonmanufacturing) make no extra payments for overtime work—the number was much greater prior to the effective date of the Fair Labor Standards Act.

4. The adjustment factors are designed for application to average earnings in entire industries or major branches of industries. They should be used with the utmost caution in adjusting wages for individual establishments or for combinations of industries.

5. The adjustment factors should not be used where abnormal factors affect hours or earnings, e. g., for a pay period in which an important strike occurred or a substantial special-bonus payment was made.

WAGE-RATE CHANGES IN UNITED STATES INDUSTRIES

THE following table gives information concerning wage-rate adjustments occurring during the month ending August 15, 1942, as shown by reports received from manufacturing and nonmanufacturing estab-

[2] The method of fitting the trend line closely approximates the least squares method of fitting mathematical functions to scatter diagrams.

[3] This limitation applies particularly to the adjustment factors for average weekly hours of 42 or less. Other types of overtime generally constitute a relatively small part of the total overtime in plants maintaining long working hours.

lishments which supply employment data to the Bureau of Labor Statistics.

As the Bureau's survey does not cover all establishments in an industry and, furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending August 15, 1942 [1]

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
All manufacturing	34,665	1,350	9,099,491	831,608	7.7
Durable goods	13,492	674	5,510,166	600,153	7.4
Nondurable goods	21,173	676	3,589,325	231,455	8.6
Iron and steel and their products, not including machinery	2,731	203	1,266,420	218,589	6.0
Blast furnaces, steel works, and rolling mills	344	68	585,811	183,573	8.5
Bolts, nuts, washers, and rivets	65	7	18,573	2,887	7.1
Forgings, iron and steel	104	8	25,924	1,923	7.3
Hardware	156	6	41,522	315	7.5
Plumbers' supplies	108	4	17,532	401	8.2
Stamped and enameled ware	294	16	51,021	2,031	7.4
Steam and hot-water heating apparatus and steam fittings	113	5	48,190	1,300	5.4
Stoves	247	8	33,863	2,163	5.5
Structural and ornamental metalwork	287	25	39,031	7,247	5.9
Tin cans and other tinware	138	8	28,873	1,803	7.8
Tools (not including edge tools, machine tools, files, and saws)	113	5	17,985	720	5.9
Wirework	176	9	21,753	1,109	8.5
Metal doors and shutters	31	5	6,921	1,598	7.1
Screw-machine products	99	6	30,990	684	18.1
Wire not made in rolling mills	54	4	26,228	1,162	7.0
Wrought pipe not made in rolling mills	26	4	12,740	4,080	5.3
Machinery, not including transportation equipment	4,148	223	1,562,010	94,218	6.4
Agricultural implements (including tractors)	115	5	67,027	490	5.3
Electrical machinery, apparatus, and supplies	629	25	(2)	37,334	5.7
Engines, turbines, water wheels, and windmills	94	7	(2)	14,861	5.5
Foundry and machine-shop products	2,387	130	480,769	24,491	6.3
Machine tools	160	8	(2)	1,702	12.0
Radios and phonographs	84	4	54,299	4,105	6.8
Textile machinery and parts	119	6	25,117	321	6.4
Machine-tool accessories	178	21	(2)	4,846	10.8
Pumps	109	4	36,588	1,102	6.3
Metal-working machines	90	7	27,129	2,148	10.9
Transportation equipment	938	55	1,747,444	259,373	8.8
Automobiles	385	4	398,178	1,442	4.7
Shipbuilding	274	46	(2)	255,868	8.8
Nonferrous metals and their products	1,200	53	337,047	9,216	8.3
Brass, bronze, and copper products	396	26	(2)	3,293	9.9
Jewelry	195	3	13,167	388	7.1
Lighting equipment	85	3	11,429	844	6.4
Sheet-metal work	158	7	13,517	278	9.6
Smelting and refining of scrap metal	47	4	5,896	450	6.8
Lumber and allied products	2,861	83	359,528	11,779	8.2
Furniture	759	19	106,835	2,583	6.8
Lumber:					
Millwork	557	19	39,851	3,646	9.2
Sawmills	715	24	141,750	3,659	7.0
Wooden boxes, other than cigar	147	4	15,577	526	9.5
Mattresses and bedsprings	200	8	9,077	144	6.3
Stone, clay, and glass products	1,614	57	237,717	6,978	8.1
Brick, tile, and terra cotta	497	13	40,224	899	8.2
Cement	132	5	25,411	1,222	7.2
Glass	155	3	71,698	1,257	5.7
Marble, granite, slate, and other products	231	3	5,133	339	27.6

See footnotes at end of table.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending August 15, 1942[1]—Continued

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
Stone, clay, and glass products—Continued.					
Pottery	132	6	34,878	1,150	6.5
Asbestos products	54	4	17,916	1,175	7.2
Concrete products	113	10	3,339	272	11.3
Lime	97	4	6,568	244	4.7
Textiles and their products	7,020	259	1,413,769	153,426	9.2
Fabrics	3,459	237	1,013,510	151,084	9.2
Cotton goods	825	146	454,420	122,420	9.4
Cotton small wares	127	4	16,676	570	9.4
Dyeing and finishing textiles	214	17	53,722	7,842	9.0
Hosiery	515	13	99,350	2,270	5.3
Knitted outerwear	215	3	18,629	51	7.1
Knitted underwear	142	6	42,384	4,191	7.1
Silk and rayon goods	463	18	79,490	9,403	9.1
Woolen and worsted goods	412	13	161,428	2,136	9.2
Cordage and twine	62	7	13,860	1,279	7.0
Wearing apparel	3,561	22	400,259	2,342	8.0
Clothing, men's	1,101	5	157,805	1,399	7.8
Clothing, women's	1,273	6	94,165	192	7.6
Millinery	178	4	8,987	247	5.3
Leather and its manufactures	1,082	34	243,978	5,455	6.6
Boots and shoes	494	9	168,196	1,978	5.8
Leather	182	10	36,986	1,511	5.9
Boot and shoe cut stock and findings	128	4	10,228	189	6.9
Food and kindred products	5,184	171	636,952	19,384	9.3
Baking	1,000	49	85,272	3,436	9.1
Beverages	610	5	47,864	54	10.1
Butter	306	8	6,988	163	8.9
Canning and preserving	1,066	32	177,927	5,063	10.9
Confectionery	267	10	40,249	1,639	7.6
Flour	329	20	15,676	2,202	6.6
Ice cream	264	4	10,801	95	8.8
Slaughtering and meat packing	336	9	155,095	885	9.0
Distilled and vinous liquors	84	6	14,754	1,115	9.3
Condensed and evaporated milk	103	5	8,856	204	10.9
Feeds, prepared	115	4	5,630	132	9.9
Tobacco manufactures	214	19	72,679	9,281	7.0
Paper and printing	3,942	66	386,923	8,317	7.9
Boxes, paper	672	13	45,832	906	10.0
Paper and pulp	434	20	134,140	5,175	7.8
Printing and publishing:					
Book and job	1,479	14	78,599	308	7.0
Newspapers and periodicals	714	5	58,597	282	5.6
Envelopes	68	5	7,054	694	6.0
Chemical, petroleum, and coal products	2,431	92	479,072	27,431	6.4
Petroleum refining	182	18	81,570	13,087	5.6
Chemicals	278	9	94,667	2,583	8.9
Explosives	56	3	(2)	1,591	7.7
Fertilizers	331	9	12,578	1,562	9.6
Paints and varnishes	490	7	22,751	202	5.3
Soap	92	5	15,046	898	6.5
Fireworks	10	3	4,220	498	10.0
Coke-oven products	34	10	11,250	2,014	5.1
Roofing materials	28	3	5,083	1,043	5.6
Patent and proprietary medicines	108	5	5,210	47	10.0
Rubber products	272	7	133,715	3,335	8.5
Rubber goods, other	216	6	52,544	2,682	9.3
Miscellaneous	1,028	29	222,237	4,826	6.8
Fabricated plastic and wood pulp products	78	3	20,098	2,465	5.7
Instruments, professional, scientific and commercial	86	9	(2)	1,240	6.5
Surgical and orthopedic appliances	51	3	11,588	109	9.6

See footnotes at end of table.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending August 15, 1942[1]—Continued

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
Nonmanufacturing (except building construction)	[3] 88,120	571	[3] 3,072,000	28,380	8.7
Metalliferous mining	[3] 500	16	[3] 89,800	1,476	11.0
Quarrying and nonmetallic mining	[3] 1,300	22	[3] 48,900	586	9.3
Crude petroleum	[3] 520	38	[3] 34,200	4,046	6.8
Public utilities:					
Electric light and power	[3] 2,520	87	[3] 228,700	9,111	7.3
Manufactured gas	[3] 140	6	[3] 28,500	4,407	10.9
Street railways and busses	[3] 350	8	[3] 158,700	2,434	8.1
Trade:					
Wholesale	[3] 14,400	300	[3] 331,400	4,498	10.4
Retail	[3] 48,430	57	[3] 992,100	678	9.4
Hotels	[3] 1,800	8	[3] 138,800	453	9.6
Laundries	[3] 1,280	9	[3] 92,700	505	9.1
Insurance	[3] 3,520	15	[3] 162,300	49	5.6

[1] Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "all manufacturing", and in the various industry groups. No decreases reported.
[2] Included in group totals but not available for publication separately.
[3] Approximate—based on previous month's sample.

TVA WAGE RATES: AMPLIFICATION

THERE appeared in the August 1942 issue of the Monthly Labor Review schedules of hourly and annual rates of pay of employees of the Tennessee Valley Authority in trades and labor classifications. It was stated that the rates gave due and adequate recognition to intelligence, skill, training, experience and responsibility required. It should have been stated also that these schedules of rates, which went into effect on January 1, 1942, were the rates prevailing in the Tennessee Valley area and were negotiated at the seventh annual wage conference between the Authority and the Tennessee Valley Trades and Labor Council. That council is composed of 15 international unions, affiliated with the American Federation of Labor, whose members are employed by the Authority.

LABOR TURN-OVER IN MANUFACTURING, AUGUST 1942

IN August, for the eighth consecutive month since the outbreak of the war, the quit rate in all manufacturing industries combined showed increase over the previous month. After reaching a rate of 3.85 in an June and 4.02 in July, the August quit rate rose to 4.31 per 100 employees. In 11 selected war industries the rate reached 4.18 in August compared with 3.50 in July 1942. As war production continues to expand, many workers are quitting their jobs in consumer-goods industry, presumably to transfer to higher-paid war jobs. At the same time, even in the war industries, workers are shifting from one employer to another within the same industry, as well as to jobs in other industries. Merely to offset these voluntary separations employers are required to hire large numbers of new workers. In all manufacturing industries, slightly more than 6 out of every 10 new persons hired in August were for such replacements.

In sawmills and planing mills approximately 10 out of every 100 workers quit their jobs during August. Other industries with continued high quit rates per 100 employees were flour (7.89), furniture (7.70), stamped and enameled ware (7.18), slaughtering and meat packing (7.16), rubber boots and shoes (7.09), paper boxes (6.43), brick, tile, and terra cotta (6.34), and structural and ornamental metal work (6.30). Of the 11 selected war industries for which quit rates are published, only aluminum, and engines and turbines, reported lower quit rates in August than in July. The quit rate rose to 5.77 per 100 workers in shipbuilding, 4.84 in foundries and machine shops, 4.53 in brass, bronze, and copper products, and 4.29 in the aircraft industry.

Total separations rose to 7.06 per 100 workers in August as a result of the high quit rate and increased miscellaneous separations, which reached 1.46 as a result of expanding military separations. The discharge rate (0.42) remained practically unchanged, while the lay-off rate declined to 0.87 as compared with 1.05 in July 1942 and 1.13 in August 1941. Total accessions declined from 8.28 in July to 7.90 in August, due to a decrease in the rate of new hires.

These turn-over data are based on reports received by the Bureau of Labor Statistics from approximately 8,700 manufacturing establishments employing more than 4,300,000 wage earners in August 1942. Table 1 shows the monthly turn-over rates for all 135 industries combined, and table 2 presents data for the separate industries in which sizable numbers of workers are employed and for which the release of the data is not restricted. Table 3 shows only the quit rates for each of the 11 selected war industries for which the publication of other turn-over data has been restricted for military reasons.

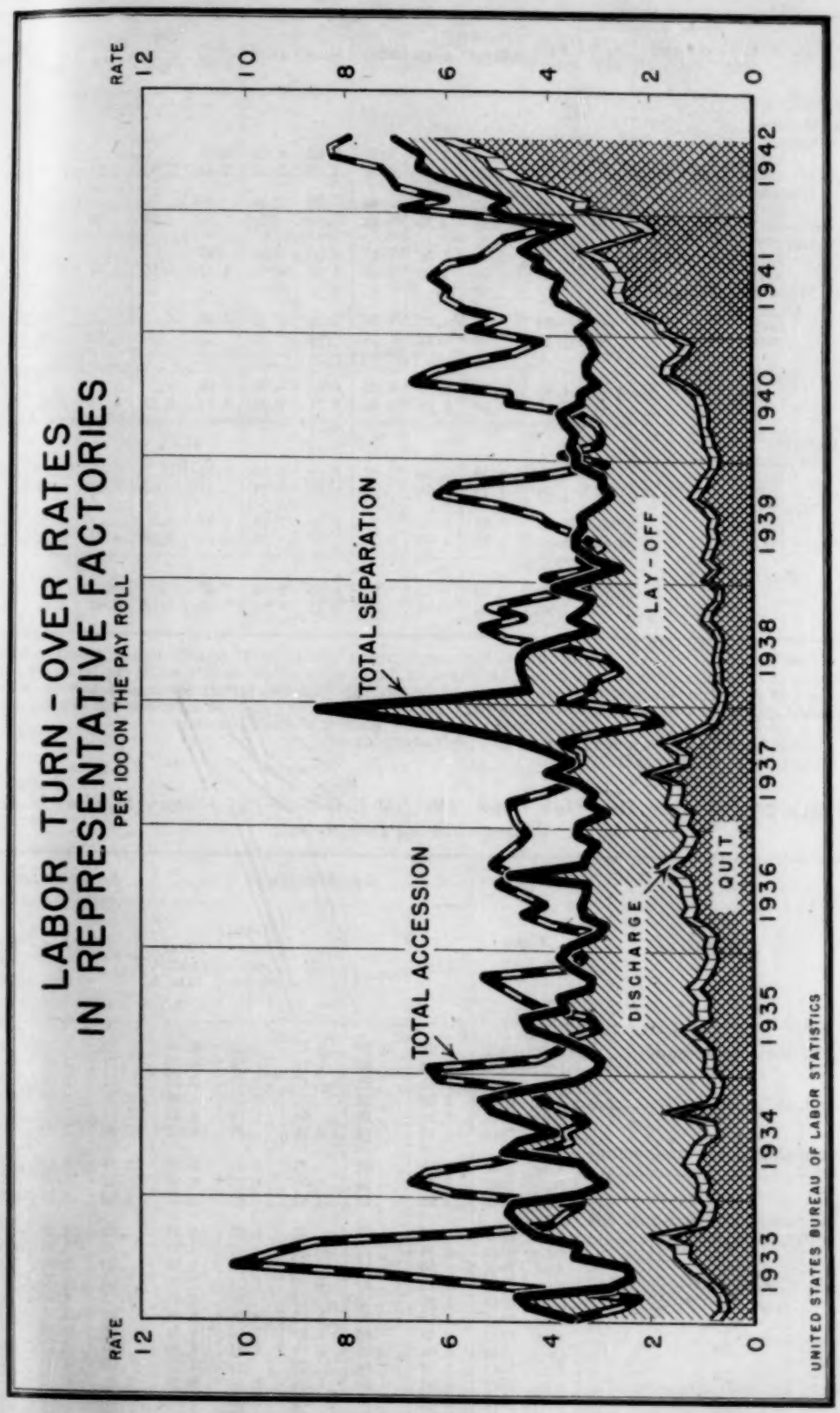

LABOR TURN-OVER RATES
IN REPRESENTATIVE FACTORIES
PER 100 ON THE PAY ROLL
RATE
12
10
8
6
4
2
0
TOTAL ACCESSION
TOTAL SEPARATION
DISCHARGE
QUIT
LAY-OFF
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
UNITED STATES BUREAU OF LABOR STATISTICS

TABLE 1.—*Monthly Labor Turn-Over Rates of Factory Workers in Representative Establishments in 135 Industries* [1]

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December
Separations:												
Quits:												
1942	2.36	2.41	3.02	3.59	3.77	3.85	4.02	4.31				
1941	1.31	1.33	1.70	2.08	2.20	2.06	2.25	2.46	2.81	2.11	1.57	1.75
Discharges:												
1942	.30	.29	.33	.35	.38	.38	.43	.42				
1941	.18	.19	.21	.25	.24	.26	.29	.30	.31	.28	.24	.29
Lay-offs: [2]												
1942	1.61	1.39	1.19	1.31	1.43	1.21	1.05	.87				
1941	1.61	1.20	1.06	1.19	1.08	1.03	1.40	1.13	1.16	1.41	1.44	2.15
Miscellaneous separations: [3]												
1942	.83	.73	.82	.87	.96	1.02	1.23	1.46				
1941	.31	.43	.43	.37	.34	.36	.30	.25	.25	.33	.26	.32
Total:												
1942	5.10	4.82	5.36	6.12	6.54	6.46	6.73	7.06				
1941	3.41	3.15	3.40	3.89	3.86	3.71	4.24	4.14	4.53	4.13	3.51	4.71
Accessions:												
Rehirings:												
1942	1.41	1.03	1.18	1.11	1.07	1.12	1.09	1.12				
1941	1.45	1.08	1.24	1.04	.92	.90	1.04	1.11	.87	.86	.79	.94
New hirings:												
1942	5.46	4.99	5.81	6.01	6.22	7.13	7.19	6.78				
1941	4.09	3.84	4.38	5.00	5.03	5.41	4.96	4.32	4.29	4.01	3.12	3.82
Total:												
1942	6.87	6.02	6.99	7.12	7.29	8.25	8.28	7.90				
1941	5.54	4.92	5.62	6.04	5.95	6.31	6.00	5.43	5.16	4.87	3.91	4.76

[1] Turn-over rates are not comparable to the employment and pay-roll reports issued monthly by the Bureau of Labor Statistics, as the former are based on data for the entire month, while the latter refer only to the pay period ending nearest the middle of the month. In addition, certain seasonal industries, such as canning and preserving, are not covered by the labor turn-over survey and the sample is not as extensive as that of the employment survey, which includes a larger number of small plants.
[2] Including temporary, indeterminate, and permanent lay-offs.
[3] Military separations included.

TABLE 2.—*Monthly Turn-Over Rates (Per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]

Industry	Date	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation [2]	Total separation	Rehiring	New hiring	Total accession
Agricultural implements	Aug. 1942	2.94	0.27	2.13	1.25	6.59	1.52	4.56	6.08
	July 1942	2.03	.37	1.12	1.18	4.70	.71	5.63	6.34
	Aug. 1941	1.31	.26	.47	.21	2.25	.51	2.03	2.54
Automobiles and bodies	Aug. 1942	2.59	.25	.72	1.42	4.98	1.66	5.96	7.62
	July 1942	2.16	.24	.64	1.18	4.22	2.11	5.65	7.76
	Aug. 1941	1.45	.14	4.10	.36	6.05	13.96	2.85	16.81
Automobile parts and equipment	Aug. 1942	3.58	.58	.75	1.27	6.18	2.14	6.60	8.74
	July 1942	3.45	.62	1.26	1.02	6.35	.73	7.03	7.76
	Aug. 1941	2.39	.45	2.41	.27	5.52	1.88	6.75	8.63
Blast furnaces, steel works, and rolling mills	Aug. 1942	3.34	.23	.51	1.73	5.81	.52	4.58	5.10
	July 1942	2.78	.17	.34	1.42	4.71	.53	3.88	4.41
	Aug. 1941	1.50	.11	.24	.33	2.18	.33	2.39	2.72
Boots and shoes	Aug. 1942	5.25	.27	1.00	1.04	7.56	1.05	4.52	5.57
	July 1942	4.39	.32	.77	.94	6.42	1.15	4.90	6.05
	Aug. 1941	2.15	.20	1.13	.16	3.64	.58	3.01	3.59
Boxes, paper	Aug. 1942	6.43	.42	1.31	1.15	9.31	.96	6.50	7.46
	July 1942	4.06	.38	1.11	1.04	6.59	.94	5.57	6.51
	Aug. 1941	3.04	.44	.60	.23	4.31	.69	4.97	5.66
Brick, tile, and terra cotta	Aug. 1942	6.34	.50	1.26	1.08	9.18	1.21	6.42	7.63
	July 1942	5.62	.43	.95	1.00	8.00	.80	7.69	8.49
	Aug. 1941	2.75	.31	1.31	.16	4.53	.60	4.00	4.60

See footnotes at end of table.

TABLE 2.—*Monthly Turn-Over Rates (Per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]—Continued

Industry	Date	Separation rates					Accession rates		
		Quit	Discharge	Layoff	Miscellaneous separation [2]	Total separation	Rehiring	New hiring	Total accession
Cast-iron pipe	Aug. 1942	2.56	0.33	0.06	1.27	4.22	1.09	3.87	4.96
	July 1942	2.30	.30	.13	1.07	3.80	.14	4.63	4.77
	Aug. 1941	2.08	.48	1.10	.25	3.91	.79	2.44	3.23
Cement	Aug. 1942	4.07	.51	.55	1.02	6.15	.40	6.76	7.16
	July 1942	2.93	.36	.36	.99	4.64	.53	5.95	6.48
	Aug. 1941	1.31	.15	.65	.17	2.28	.22	2.12	2.34
Chemicals	Aug. 1942	3.82	.43	.38	1.64	6.27	.63	5.87	6.50
	July 1942	3.41	.51	.81	1.34	6.07	.35	5.84	6.19
	Aug. 1941	1.81	.24	.58	.31	2.94	.19	3.66	3.85
Cigars and cigarettes	Aug. 1942	5.97	.20	.56	.36	7.09	1.91	6.03	7.94
	July 1942	4.60	.26	.31	.69	5.86	1.04	6.74	7.78
	Aug. 1941	3.05	.12	.32	.13	3.62	4.04	4.13	8.17
Cotton manufacturing	Aug. 1942	5.82	.42	.68	1.00	7.92	1.71	6.16	7.87
	July 1942	6.12	.53	.63	.93	8.21	1.46	6.67	8.13
	Aug. 1941	4.15	.37	.78	.21	5.51	1.11	4.94	6.05
Dyeing and finishing textiles	Aug. 1942	5.99	.87	.42	1.18	8.46	.96	6.77	7.73
	July 1942	5.88	1.17	.56	.96	8.57	1.21	7.57	8.78
	Aug. 1941	3.18	.37	.89	.23	4.67	.74	3.84	4.58
Flour	Aug. 1942	7.89	.36	1.18	1.12	10.55	1.04	8.94	9.98
	July 1942	6.42	.34	.64	1.02	8.42	1.59	10.46	12.05
	Aug. 1941	3.57	.37	1.72	.63	6.29	.24	4.65	4.89
Foundries and machine shops	Aug. 1942	4.84	.54	.43	1.41	7.22	.48	7.86	8.34
	July 1942	4.15	.53	.71	1.12	6.51	.81	7.91	8.72
	Aug. 1941	2.71	.48	.93	.27	4.39	.46	5.23	5.69
Furniture	Aug. 1942	7.70	.72	2.29	1.34	12.05	1.17	10.10	11.27
	July 1942	6.36	.70	2.04	1.19	10.29	1.29	9.03	10.32
	Aug. 1941	4.35	.49	.93	.27	6.04	.71	6.50	7.21
Glass	Aug. 1942	4.61	.22	1.62	1.40	7.85	1.49	7.12	8.61
	July 1942	4.09	.33	2.85	1.26	8.53	.78	4.76	5.54
	Aug. 1941	1.80	.21	.78	.27	3.06	1.44	3.92	5.36
Hardware	Aug. 1942	5.36	.51	1.06	.96	7.89	.89	5.16	6.05
	July 1942	4.77	.32	1.31	.91	7.31	1.12	5.08	6.20
	Aug. 1941	3.87	.38	.65	.33	5.23	.40	4.66	5.06
Knit goods	Aug. 1942	4.60	.25	.68	.53	6.06	.58	5.16	5.74
	July 1942	4.01	.21	.80	.46	5.48	.61	4.66	5.27
	Aug. 1941	2.80	.30	3.13	.13	6.36	.60	3.14	3.74
Leather goods	Aug. 1942	3.32	.19	.67	1.12	5.30	.99	3.60	4.59
	July 1942	3.03	.17	.92	.94	5.06	.66	2.97	3.63
	Aug. 1941	1.47	.10	.70	.13	2.40	.47	2.76	3.23
Lighting equipment	Aug. 1942	4.61	.31	6.17	1.23	12.32	3.50	3.15	6.65
	July 1942	4.42	.27	5.15	.88	10.72	2.23	4.78	7.01
	Aug. 1941	2.54	.30	.40	.26	3.50	.07	4.48	4.55
Men's clothing	Aug. 1942	4.28	.28	1.62	.28	6.46	1.52	4.37	5.89
	July 1942	3.68	.19	1.40	.29	5.56	1.60	3.66	5.26
	Aug. 1941	1.84	.19	1.03	.12	3.18	.55	2.93	3.48
Paints and varnishes	Aug. 1942	4.32	.43	.69	1.21	6.65	.56	5.84	6.40
	July 1942	3.72	.37	1.04	1.17	6.30	.52	5.15	5.67
	Aug. 1941	2.20	.21	1.30	.30	4.01	.16	2.75	2.91
Paper and pulp	Aug. 1942	5.66	.36	.59	1.57	8.18	.56	5.46	6.02
	July 1942	4.63	.24	.89	1.21	6.97	.37	4.77	5.14
	Aug. 1941	1.84	.28	.68	.25	3.05	.34	3.50	3.84
Petroleum refining	Aug. 1942	2.08	.19	.54	1.08	3.89	.40	3.24	3.64
	July 1942	1.54	.15	.28	1.03	3.00	.33	3.11	3.44
	Aug. 1941	.98	.10	.62	.20	1.90	.22	1.55	1.77
Planing mills	Aug. 1942	9.28	.75	2.16	1.71	13.90	1.34	14.46	15.80
	July 1942	7.42	.71	1.58	1.29	11.00	2.38	9.84	12.22
	Aug. 1941	3.85	.37	1.07	.20	5.49	.89	4.77	5.66
Printing:									
Book and job	Aug. 1942	3.37	.17	2.75	.95	7.24	1.58	4.43	6.01
	July 1942	3.05	.22	2.33	.89	6.49	1.38	4.30	5.68
	Aug. 1941	2.16	.25	2.77	.20	5.38	1.97	4.82	6.79
Newspapers and periodicals	Aug. 1942	1.37	.21	.97	.78	3.33	.51	1.73	2.24
	July 1942	1.65	.13	1.14	.64	3.56	.79	1.41	2.20
	Aug. 1941	.58	.08	1.22	.17	2.05	.69	1.69	2.38
Radios and phonographs	Aug. 1942	4.93	.52	.68	.95	7.08	1.18	9.23	10.41
	July 1942	4.78	.54	.92	.76	7.00	1.81	10.17	11.98
	Aug. 1941	3.50	.38	.15	.14	4.17	1.46	7.33	8.79
Rayon and allied products	Aug. 1942	1.85	.34	.84	.91	3.94	.20	2.83	3.03
	July 1942	1.55	.22	.59	1.01	3.37	.39	3.42	3.81
	Aug. 1941	.99	.19	1.03	.30	2.51	.93	1.82	2.75

See footnotes at end of table.

TABLE 2.—*Monthly Turn-Over Rates (Per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]—Continued

Industry	Date	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation [2]	Total separation	Rehiring	New hiring	Total accession
Rubber boots and shoes	Aug. 1942	7.09	0.27	0.38	1.07	8.81	1.71	11.43	13.14
	July 1942	4.89	.28	.30	1.12	6.59	1.16	11.27	12.43
	Aug. 1941	2.91	.19	1.11	.54	4.75	.76	2.41	3.17
Rubber tires	Aug. 1942	3.64	.15	.12	1.53	5.49	.48	11.38	11.86
	July 1942	2.51	.22	.61	1.57	4.91	.62	13.63	14.25
	Aug. 1941	1.72	.13	1.06	.45	3.36	.59	2.40	2.99
Sawmills	Aug. 1942	10.12	.44	.72	1.85	13.13	1.48	10.25	11.73
	July 1942	9.85	.55	.92	1.55	12.87	1.76	10.20	11.96
	Aug. 1941	4.29	.38	1.10	.38	6.15	1.18	5.70	6.88
Silk and rayon goods	Aug. 1942	5.52	.34	1.37	.90	8.13	1.46	5.08	6.54
	July 1942	5.76	.29	1.78	.82	8.65	1.38	5.80	7.18
	Aug. 1941	3.57	.34	5.75	.20	9.86	.85	3.22	4.07
Slaughtering and meat packing	Aug. 1942	7.16	.48	4.10	2.19	13.93	3.18	8.85	12.03
	July 1942	5.49	.53	3.97	1.67	11.66	3.82	9.16	12.98
	Aug. 1941	2.10	.27	5.71	.33	8.41	4.60	5.01	9.61
Stamped and enameled ware	Aug. 1942	7.18	.76	2.59	1.51	12.04	.81	8.02	8.83
	July 1942	5.31	.55	1.03	1.37	8.26	1.51	7.78	9.29
	Aug. 1941	5.22	.57	2.78	.58	9.15	1.16	7.61	8.77
Steam and hot-water heating apparatus	Aug. 1942	2.43	.24	.53	1.56	4.76	.15	6.61	6.76
	July 1942	2.14	.20	.30	1.23	3.87	.50	4.08	4.58
	Aug. 1941	3.85	.36	.94	.46	5.61	.53	4.84	5.37
Stoves	Aug. 1942	3.67	.61	8.07	1.88	14.23	1.45	5.83	7.28
	July 1942	4.62	.63	4.97	1.01	11.23	2.38	7.34	9.72
	Aug. 1941	4.58	.53	2.18	.29	7.58	.62	6.23	6.85
Structural and ornamental metalwork	Aug. 1942	6.30	.85	.86	1.48	9.49	.79	11.02	11.81
	July 1942	4.75	.66	1.70	1.18	8.29	.86	9.58	10.44
	Aug. 1941	2.32	.32	.34	.45	3.43	.48	4.63	5.11
Textile machinery	Aug. 1942	3.06	.27	.26	1.41	5.00	.23	3.74	3.97
	July 1942	3.25	.21	.35	1.41	5.22	.45	3.47	3.92
	Aug. 1941	2.54	.23	.15	.30	3.22	.20	3.93	4.13
Tools (not including edge tools, machine tools, files, and saws)	Aug. 1942	4.89	.44	.53	1.33	7.19	.19	5.64	5.83
	July 1942	4.87	.56	.29	1.19	6.91	.31	5.70	6.01
	Aug. 1941	3.21	.31	.24	.36	4.12	.09	5.15	5.24
Woolen and worsted goods	Aug. 1942	4.12	.23	.90	1.13	6.38	2.91	4.87	7.78
	July 1942 [3]	4.21	.24	1.03	1.34	6.82	.87	5.65	6.52
	Aug. 1941	3.47	.23	.79	.25	4.74	1.00	3.87	4.87

[1] No individual industry data shown unless reports cover at least 25 percent of industrial employment.
[2] Military separations included.
[3] Revised.

In table 3 are given the quit rates for strategic war industries for which the publication of complete turn-over data has been restricted.

TABLE 3.—*Monthly Quit Rates (Per 100 Employees) in Selected War Industries*

Industry	Quit rates		
	August 1942	July 1942	August 1941
Average for 11 selected war industries [1]	4.18	3.50	2.19
Aircraft	4.29	3.76	2.87
Aluminum	3.17	3.51	3.47
Brass, bronze, and copper products	4.53	3.81	2.66
Electrical machinery	2.76	2.36	2.05
Engines and turbines	1.53	1.67	1.45
Explosives	2.92	2.25	1.91
Firearms	4.11	3.65	3.97
Machine tools	3.41	3.02	2.55
Shipbuilding	5.77	4.67	2.35

[1] Includes blast furnaces, steel works, and rolling mills, and foundries and machine shops, as shown in table 2.

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, SEPTEMBER 1942[1]

BUILDING-PERMIT valuations declined 70 percent between September 1941 and September 1942; the downward trend in permit valuations continued for the seventh consecutive month. The WPB placed additional restrictions on civilian construction on September 7, 1942, but the major part of the drop was due to the reduced volume of Federally financed building. All classes of construction showed substantial losses, the most pronounced being an 82-percent drop in permit valuations for new nonresidential buildings. Valuations for new residential buildings decreased 64 percent and for additions and repairs, 33 percent.

The decline in permit valuations from August to September 1942 amounted to 11 percent. Reductions of 36 percent in nonresidential valuations and of 10 percent in those for additions and repairs were partially offset by a 14-percent rise in permit valuations for residential buildings from August to September.

Comparison of September 1942 with September 1941 and August 1942

The volume of building construction in 2,366 identical cities with populations of 500 and over, which reported to the Bureau of Labor Statistics in August and September 1942 and September 1941, is summarized in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,366 Identical Cities, September 1942*

Class of construction	Number of buildings			Permit valuation		
	September 1942	Percentage change from—		September 1942	Percentage chang from—	
		August 1942	September 1941		August 1942	September 1941
All construction	53,702	+0.2	−40.7	$100,549,204	−11.3	−69.9
New residential	10,503	−3.3	−67.4	50,292,371	+14.1	−64.0
New nonresidential	8,766	+3.0	−44.3	29,722,629	−35.9	−81.9
Additions, alterations, and repairs	34,433	+.6	−19.3	20,534,204	−10.2	−32.6

[1] More detailed information by geographic divisions and population groups is contained in a separate mimeographed release entitled "Building Construction, September 1942," copies of which will be furnished upon request.

The number of new dwelling units for which permits were issued and the permit valuation of such new housekeeping residential construction in the 2,366 cities reporting in September 1942 are presented in table 2. Percentage changes between September 1942 and August 1942 and September 1941 are also shown.

TABLE 2.—*Number and Permit Valuation of New Dwelling Units in 2,366 Identical Cities, September 1942, by Source of Funds and Type of Dwelling*

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	September 1942	Percentage change from—		September 1942	Percentage change from—	
		August 1942	September 1941		August 1942	September 1941
All dwellings	14,088	−4.9	−61.0	$43,323,512	−1.5	[4] −68.7
Privately financed	12,430	−4.5	−53.0	38,439,498	+.7	−63.0
1-family	8,357	+5.9	−62.0	28,086,236	+7.6	−69.5
2-family [1]	1,350	−1.5	−33.9	3,775,520	+15.7	−31.1
Multifamily [2]	2,723	−27.5	+11.4	6,577,742	−25.2	+3.0
Publicly financed	1,658	−8.0	−82.8	4,884,014	−16.1	−85.8

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Comparison of First 9 Months of 1941 and 1942

Permit valuations reported in the first 9 months of 1941 and 1942 are compared in table 3.

TABLE 3.—*Permit Valuation of Building Construction, by Class of Construction, First 9 Months of 1941 and 1942* [1]

Class of construction	Permit valuation		
	First 9 months of—		Percentage change
	1942	1941	
All construction	$1,491,347,852	$2,380,885,974	−37.4
New residential	657,392,931	1,184,434,027	−44.5
New nonresidential	623,234,150	908,268,564	−31.4
Additions, alterations, and repairs	210,720,771	288,183,383	−26.9

[1] Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.

The number and permit valuation of new dwelling units for which permits were issued in the first 9 months of 1942 are compared with similar data for the corresponding months of 1941 in table 4.

TABLE 4.—*Number and Permit Valuation of New Dwelling Units, by Source of Funds and Type of Dwelling, First 9 Months of 1941 and 1942* [1]

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	First 9 months of—		Percentage change	First 9 months of—		Percentage change
	1942	1941		1942	1941	
All dwellings	194,605	311,609	−37.5	$645,414,763	$1,171,514,585	−44.9
Privately financed	143,777	259,540	−44.6	477,622,099	996,364,554	−52.1
1-family	102,263	202,672	−49.5	364,445,452	837,437,723	−56.5
2-family [2]	12,784	16,960	−24.6	35,147,766	44,097,223	−20.3
Multifamily [3]	28,730	39,908	−28.0	78,028,881	114,829,608	−32.0
Publicly financed	50,828	52,069	−2.4	167,792,664	175,150,031	−4.2

[1] Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.

Construction From Public Funds, September 1942

The value of contracts awarded and force-account work started during August and September 1942 and September 1941 on all construction projects financed wholly or partially from Federal funds is shown in table 5. This table includes other types of construction as well as building construction, both inside and outside 2,366 reporting cities.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed From Federal Funds, August and September 1942 and September 1941*

[Thousands of dollars]

Federal agency	Contracts awarded and force-account work started		
	September 1942 [1]	August 1942 [2]	September 1941 [2]
Total	278,999	4,181,729	354,229
War Public Works	722	2,639	(3)
Federal agency projects under the WPA	0	0	210
Regular Federal appropriations [4]	232,827	4,165,224	309,723
Federal Public Housing Authority [5]	45,450	13,866	[6] 44,296

[1] Preliminary; subject to revision.
[2] Revised.
[3] Program not started until October 1941.
[4] Exclusive of contracts awarded for public housing.
[5] Includes contracts awarded for all public housing projects.
[6] Includes $24,927,992 for contracts awarded on USHA projects and $19,368,372 for contracts awarded from regular Federal appropriations.

The value of all contracts awarded for public buildings and highway construction to be financed wholly from State funds, as reported by the State governments for August and September 1942 and September 1941, was as follows:

	Public buildings	*Highway construction*
September 1941	$1,330,012	$17,113,467
August 1942	519,150	7,724,142
September 1942	679,367	6,817,408

Coverage of Building-Permit Statistics

Building-permit data are collected by the Bureau of Labor Statistics each month from more than 2,500 places having a population of 500 or more in 1940, from which are selected those for cities which also reported in the preceding month and in the corresponding month of the previous year. In addition, the Bureau receives notifications of the value of construction contracts awarded by Federal and State governments. Federal and State building construction in the 2,366 reporting cities totaled $24,955,000 in September 1942, as contrasted with $40,656,000 in the previous month and $163,210,000 in September 1941.

The permit-valuation figures represent estimates of construction costs made by prospective private builders when applying for permits to build and the value of contracts awarded by Federal or State governments. No land costs are included. Unless otherwise indicated, only building construction within the corporate limits of the reporting cities is included in the tabulations.

Retail Prices

FOOD PRICES IN SEPTEMBER 1942

RETAIL prices of most important foods continued to rise between August 18 and September 15, 1942, but the rate of advance in total food costs was not so great as that shown for the previous month because of substantial seasonal decreases in prices of several fresh fruits and vegetables. The average increase in 51 cities combined was 0.4 percent from mid-August to mid-September, as compared with a rise of 1.2 percent during the preceding month. The index of food costs for September 15 was 26.6 percent above the 1935–39 average, 14.4 percent above the level of September 1941, and 4.1 percent above May 12, 1942 (the date of the Bureau's last survey before price control was inaugurated at the retail level).

Prices of food not under direct control by the Office of Price Administration rose by slightly more than 0.3 percent over August 18, and were 10.2 percent higher on September 15 than on May 12. Prices of several uncontrolled foods continued to increase sharply. Dried prunes, the supply of which has been earmarked for Government purchase, advanced 8.0 percent. The effect of the Office of Price Administration regulation removing ceiling restrictions on the 1942 pack of peanut butter was first shown at retail in September, with a price rise of 3.3 percent since August 18. The advances of 4.5 percent for butter and 6.5 percent for eggs were seasonal. Prices of wheat flour rose for the second consecutive month, and those of roasting chickens rose seasonally (1.2 percent). Slight increases were reported for corn meal, fresh fish, cheese, evaporated milk, carrots, spinach, and navy beans. The increase for uncontrolled foods taken as a whole was smaller than in previous months because of major seasonal declines for sweetpotatoes (22.9 percent), cabbage (7.1 percent), apples (6.1 percent), and potatoes (2.2 percent), together with contraseasonal decreases for lettuce (15 percent), green beans (4.9 percent), and oranges (0.8 percent).

Prices of foods under OPA control increased by an average of 0.5 percent. Increases were reported for beef and veal (0.6 percent), pork (0.6 percent), and lamb (0.5 percent); these were much smaller advances than usually occurred at this season, prior to price control. Prices of canned fruits rose as the 1942 pack moved into the retail markets and ceilings were adjusted under the OPA regulations of August 5. Other controlled foods showing slight increases were rice, soda crackers, bananas, canned corn, and lard. Lower prices were reported for cornflakes, canned peas and tomatoes, and shortening.

Percentage changes in retail costs of food on September 15, 1942, compared with costs for May and August 1942, September 1941, and in August 1939 (before the outbreak of the war in Europe) are shown in table 1.

RETAIL COST OF ALL FOODS
AVERAGE FOR 51 LARGE CITIES
1935-39=100
INDEX
200
180
160
140
120
100
80
60
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
UNITED STATES BUREAU OF LABOR STATISTICS

TABLE 1.—*Changes in Retail Costs of Food in 51 Large Cities Combined, by Commodity Groups*

Commodity group	Percent of change, Sept. 15, 1942, compared with—				Commodity group	Percent of change, Sept. 15, 1942, compared with—			
	1942		1941	1939		1942		1941	1939
	Aug. 18	May 12	Sept. 16	Aug. 15		Aug. 18	May 12	Sept. 16	Aug. 15
All foods	+0.4	+4.1	+14.4	+35.4	Dairy products	+1.5	+3.6	+7.8	+37.2
Controlled	+.5	+.2	(1)	(1)	Eggs	+6.5	+34.5	+16.8	+71.1
Uncontrolled	+.3	+10.2	(1)	(1)	Fruits and vegetables	−2.6	+.8	+29.1	+40.4
Cereals and bakery products	+.1	+.2	+4.5	+12.8	Fresh	−3.6	+.2	+31.1	+40.4
Meats	+.9	+5.1	+13.2	+36.6	Canned	+.8	+.9	+20.8	+35.2
Beef and veal	+.6	+1.6	+8.5	+26.6	Dried	+3.3	+9.3	+29.2	+58.8
Pork	+.6	+.6	+7.9	+40.9	Beverages	+.2	−.6	+13.4	+30.5
Lamb	+.5	+13.1	+15.0	+35.3	Fats and oils	+.2	−1.4	+17.2	+42.8
Chickens	+1.4	+17.9	+29.7	+41.3	Sugar	+.2	−.1	+13.6	+32.8
Fish, fresh and canned	+2.1	+11.5	+29.5	+68.9					

[1] Not available.

Details by Commodity Groups

Indexes of retail costs of food by commodity groups are presented in table 2 for May, July, August, and September 1942, September 1941, and August 1939. The accompanying charts show the trend in costs of all foods, January 1913 to September 1942, inclusive, and for each major commodity group for the period January 1929 to July 1942, inclusive.

TABLE 2.—*Indexes of Retail Costs of Food in 51 Large Cities Combined,*[1] *by Commodity Groups, in Specified Months*

[1935-39=100]

Commodity group	1942				1941	1939
	Sept. 15[2]	Aug. 18	July 14	May 12	Sept. 16	Aug. 15
All foods	126.6	126.1	124.6	121.6	110.7	93.5
Cereals and bakery products	105.4	105.3	105.1	105.2	100.9	93.4
Meats	130.7	129.5	127.5	124.3	115.5	95.7
Beef and veal	126.1	125.3	123.6	124.1	116.2	99.6
Pork	124.0	123.3	122.1	123.2	114.9	88.0
Lamb	133.7	133.0	133.0	118.2	116.3	98.8
Chickens	133.7	131.8	125.7	113.4	103.1	94.6
Fish, fresh and canned	168.2	164.7	161.2	150.9	129.9	99.6
Dairy products	127.7	125.8	122.8	123.3	118.5	93.1
Eggs	155.2	[3] 145.7	130.2	115.4	132.9	90.7
Fruits and vegetables	129.7	133.1	135.7	128.7	100.5	92.4
Fresh	130.3	[3] 135.2	139.1	130.0	99.4	92.8
Canned	123.8	[3] 122.8	122.4	122.7	102.5	91.6
Dried	143.4	[3] 138.8	134.2	131.2	111.0	90.3
Beverages	123.8	123.5	122.8	124.6	109.2	94.9
Fats and oils	120.7	120.4	120.0	122.4	103.0	84.5
Sugar	127.0	126.7	126.6	127.1	111.8	95.6

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[2] Preliminary.
[3] Revised.

RETAIL COST OF ALL FOODS
AVERAGE FOR 51 LARGE CITIES
1935-39=100
INDEX
200
180
160
140
120
100
80
60
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
UNITED STATES BUREAU OF LABOR STATISTICS

TABLE 1.—*Changes in Retail Costs of Food in 51 Large Cities Combined, by Commodity Groups*

Commodity group	Percent of change, Sept. 15, 1942, compared with—				Commodity group	Percent of change, Sept. 15, 1942, compared with—			
	1942		1941	1939		1942		1941	1939
	Aug. 18	May 12	Sept. 16	Aug. 15		Aug. 18	May 12	Sept. 16	Aug. 15
All foods	+0.4	+4.1	+14.4	+35.4	Dairy products	+1.5	+3.6	+7.8	+37.2
Controlled	+.5	+.2	(1)	(1)	Eggs	+6.5	+34.5	+16.8	+71.1
Uncontrolled	+.3	+10.2	(1)	(1)	Fruits and vegetables	−2.6	+.8	+29.1	+40.4
Cereals and bakery products	+.1	+.2	+4.5	+12.8	Fresh	−3.6	+.2	+31.1	+40.4
Meats	+.9	+5.1	+13.2	+36.6	Canned	+.8	+.9	+20.8	+35.2
Beef and veal	+.6	+1.6	+8.5	+26.6	Dried	+3.3	+9.3	+29.2	+58.8
Pork	+.6	+.6	+7.9	+40.9	Beverages	+.2	−.6	+13.4	+30.5
Lamb	+.5	+13.1	+15.0	+35.3	Fats and oils	+.2	−1.4	+17.2	+42.8
Chickens	+1.4	+17.9	+29.7	+41.3	Sugar	+.2	−.1	+13.6	+32.8
Fish, fresh and canned	+2.1	+11.5	+29.5	+68.9					

[1] Not available.

Details by Commodity Groups

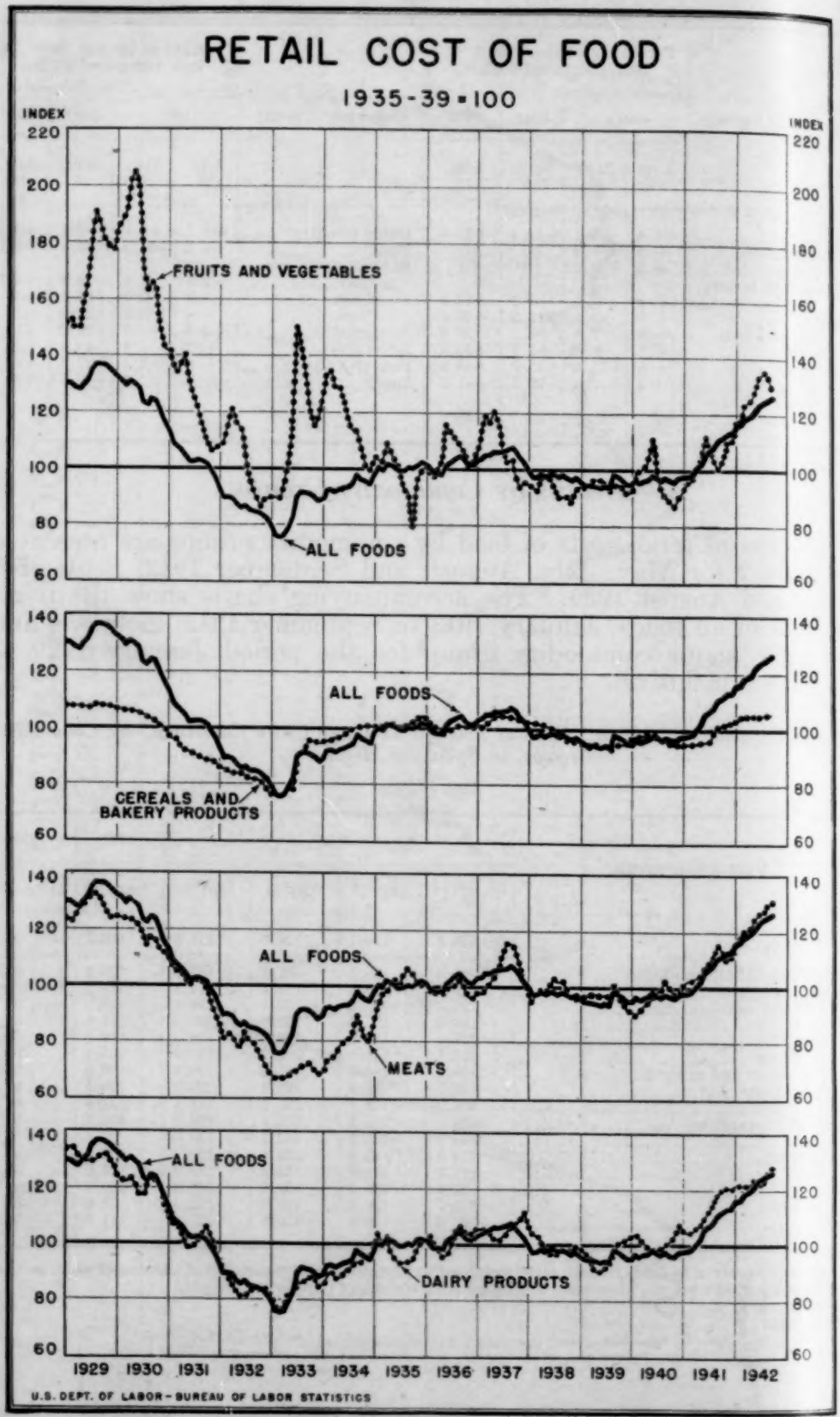
Indexes of retail costs of food by commodity groups are presented in table 2 for May, July, August, and September 1942, September 1941, and August 1939. The accompanying charts show the trend in costs of all foods, January 1913 to September 1942, inclusive, and for each major commodity group for the period January 1929 to July 1942, inclusive.

TABLE 2.—*Indexes of Retail Costs of Food in 51 Large Cities Combined,*[1] *by Commodity Groups, in Specified Months*

[1935-39=100]

Commodity group	1942				1941	1939
	Sept. 15[2]	Aug. 18	July 14	May 12	Sept. 16	Aug. 15
All foods	126.6	126.1	124.6	121.6	110.7	93.5
Cereals and bakery products	105.4	105.3	105.1	105.2	100.9	93.4
Meats	130.7	129.5	127.5	124.3	115.5	95.7
Beef and veal	126.1	125.3	123.6	124.1	116.2	99.6
Pork	124.0	123.3	122.1	123.2	114.9	88.0
Lamb	133.7	133.0	133.0	118.2	116.3	98.8
Chickens	133.7	131.8	125.7	113.4	103.1	94.6
Fish, fresh and canned	168.2	164.7	161.2	150.9	129.9	99.6
Dairy products	127.7	125.8	122.8	123.3	118.5	93.1
Eggs	155.2	[3] 145.7	130.2	115.4	132.9	90.7
Fruits and vegetables	129.7	133.1	135.7	128.7	100.5	92.4
Fresh	130.3	[3] 135.2	139.1	130.0	99.4	92.8
Canned	123.8	[3] 122.8	122.4	122.7	102.5	91.6
Dried	143.4	[3] 138.8	134.2	131.2	111.0	90.3
Beverages	123.8	123.5	122.8	124.6	109.2	94.9
Fats and oils	120.7	120.4	120.0	122.4	103.0	84.5
Sugar	127.0	126.7	126.6	127.1	111.8	95.6

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[2] Preliminary.
[3] Revised.


RETAIL COST OF FOOD
1935-39 = 100
INDEX
FRUITS AND VEGETABLES
ALL FOODS
CEREALS AND BAKERY PRODUCTS
MEATS
DAIRY PRODUCTS
1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
U.S. DEPT. OF LABOR - BUREAU OF LABOR STATISTICS

Cereals and bakery products.—Retail prices of white, whole wheat, and rye bread and macaroni remained unchanged during the month. Prices of vanilla cookies and corn flakes declined, but increases of 4 percent and 2 percent for wheat flour and corn meal, respectively, accompanied by a slight increase for soda crackers, resulted in a rise of 0.1 percent for the group as a whole.

Meats.—Advances in meat prices were general throughout the country and all meats shared in the average rise of 0.9 percent for the 51 cities combined. The largest average increases were 2.2 percent for bacon, 1.4 percent for round steak, and 1 percent for chuck roast.

Dairy products.—The increase of 1.5 percent in the index for dairy products was due to a seasonal rise of 4.5 percent for butter, together with advances of 2.3 percent for evaporated milk and 0.9 percent for cheese. The average price of fresh milk remained unchanged. The group index on September 15 was 7.8 percent above the level of September 1941, with butter approximately 16 percent higher than a year previous.

Eggs.—Less than the usual seasonal price advances were reflected in the 6.5-percent increase in the average price of eggs during the month. As a result of earlier large increases, however, egg prices were still 16.8 percent higher than in September 1941.

Fruits and vegetables.—The index for all fruits and vegetables declined 2.6 percent to a level 29 percent above September 1941, as a result of the 3.6-percent average decrease for fresh fruits and vegetables. Canned fruits and vegetables rose slightly as increases occurred in prices of canned peaches, pineapple, and corn. Declines were reported for canned peas and tomatoes. The increase in prices of dried prunes, combined with an advance of 1.1 percent for navy beans, resulted in a rise of 3.3 percent for dried fruits and vegetables.

All other foods.—Prices of beverages, fats and oils, and sugar were relatively stable between mid-August and mid-September, except for lard which advanced in price by an average of 1.8 percent.

Average prices of 65 foods in 51 cities combined are shown in table 3 for May, August, and September 1942 and September 1941.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May, August, and September 1942 and September 1941*

Article		1942			1941
		Sept. 15 [1]	Aug. 18	May 12	Sept. 16
Cereals and bakery products:					
Cereals:		*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat	10 pounds	54.3	52.2	51.6	47.5
Macaroni	pound	14.1	14.1	14.2	13.8
Wheat cereal [2]	28-oz. package	23.9	[3] 23.9	24.1	23.5
Corn flakes	8 ounces	7.0	7.1	7.2	7.1
Corn meal	pound	5.0	4.9	4.7	4.4
Rice [2]	do	12.5	12.4	12.3	9.1
Rolled oats [2]	do	8.7	8.7	8.6	7.2
Bakery products:					
Bread, white	do	8.7	8.7	8.7	8.5
Bread, whole-wheat	do	9.5	9.5	9.5	9.2
Bread, rye	do	9.7	9.7	9.7	9.5
Vanilla cookies	do	27.0	27.6	27.7	25.6
Soda crackers	do	16.6	16.5	16.4	15.1

See footnotes at end of table.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May, August, and September 1942 and September 1941*—Continued

Article		1942			1941
		Sept. 15[1]	Aug. 18	May 12	Sept. 16
Meats:					
Beef:		*Cents*	*Cents*	*Cents*	*Cents*
Round steak	pound	44.6	44.0	44.2	41.3
Rib roast	do	34.6	34.4	34.0	32.0
Chuck roast	do	30.0	29.7	28.9	26.7
Veal:					
Cutlets	do	54.9	54.6	53.6	50.2
Pork:					
Chops	do	43.1	42.9	43.2	41.5
Bacon, sliced	do	40.9	40.0	39.3	36.6
Ham, sliced[2]	do	59.5	[3] 59.3	58.8	54.1
Ham, whole	do	38.3	38.0	37.8	34.2
Salt pork	do	23.8	23.7	24.0	20.3
Lamb:					
Leg	do	37.9	37.7	33.8	32.4
Rib chops	do	47.1	46.8	41.3	41.5
Poultry:					
Roasting chickens	do	42.5	42.0	36.1	32.9
Fish:					
Fresh, frozen	do	[4]	[4]	[4]	[4]
Salmon, pink	16-oz. can	21.8	21.7	21.8	19.8
Salmon, red[2]	do	40.6	[3] 40.6	40.0	33.7
Dairy products:					
Butter	pound	50.6	48.4	45.7	43.5
Cheese	do	34.3	34.0	34.0	32.7
Milk, fresh (delivered)	quart	15.0	15.0	14.9	14.3
Milk, fresh (store)	do	13.5	13.5	13.5	13.2
Milk, fresh (delivered and store)[2]	do	14.5	14.5	14.4	13.9
Milk, evaporated	14½-oz. can	8.9	8.7	8.7	8.4
Eggs	dozen	55.2	51.7	40.9	46.9
Fruits and vegetables:					
Fresh:					
Apples	pound	6.2	6.6	7.5	4.7
Bananas	do	10.3	10.0	12.0	7.2
Oranges	dozen	39.1	[3] 39.4	31.4	34.1
Grapefruit[2]	each	9.4	[3] 8.5	6.3	[5]
Beans, green	pound	11.6	12.1	13.4	9.7
Cabbage	do	3.9	4.2	4.5	3.8
Carrots	bunch	6.9	6.8	6.6	5.3
Lettuce	head	12.5	14.7	9.2	9.4
Onions	pound	4.5	4.5	6.8	4.1
Potatoes	15 pounds	48.3	[3] 49.4	53.0	32.8
Spinach	pound	10.7	10.6	7.4	8.0
Sweetpotatoes	do	6.4	8.3	5.4	4.3
Canned:					
Peaches	No. 2½ can	24.0	23.6	23.3	20.7
Pineapple	do	28.3	27.6	27.1	21.9
Grapefruit juice[2]	No. 2 can	12.4	[3] 11.8	9.8	[5]
Beans, green[2]	do	13.7	[3] 13.7	14.0	11.1
Corn	do	13.3	13.1	13.0	11.8
Peas	do	14.7	15.0	15.8	13.7
Tomatoes	do	11.6	11.7	12.1	9.6
Dried:					
Prunes	pound	14.8	13.7	12.3	10.0
Navy beans	do	9.1	9.0	9.0	8.0
Beverages:					
Coffee	do	28.7	28.9	28.9	25.7
Tea	¼-pound	22.4	22.6	22.4	19.1
Cocoa[2]	½-pound	10.2	10.2	10.2	9.1
Fats and oils:					
Lard	pound	17.3	17.0	17.9	14.6
Shortening, other than lard:					
In cartons	do	19.5	19.6	19.8	16.9
In other containers	do	24.4	24.8	25.8	22.0
Salad dressing	pint	25.2	25.2	25.4	22.9
Oleomargarine	pound	22.4	22.4	22.4	18.0
Peanut butter	do	27.8	[3] 26.9	26.9	18.9
Sugar and sweets:					
Sugar	do	6.9	6.8	6.9	6.0
Corn sirup[2]	24 ounces	15.1	15.0	14.8	14.0
Molasses[2]	18 ounces	14.9	[3] 14.9	14.5	13.5

[1] Preliminary.
[2] Not included in index.
[3] Revised.
[4] Composite prices not computed.
[5] Priced first time on Oct. 14, 1941.

Details by Cities

Retail food costs rose in 38 cities, declined in 10, and were unchanged in 3. The largest increases occurred in Portland, Oreg., and San Francisco (2.5 percent), Mobile (1.9 percent), and Boston (1.6 percent). Local increases in prices of fruits and vegetables were responsible for the greater-than-average rise in food costs for these cities. The greatest decreases were reported for St. Louis and Memphis (1.8 percent), as a result of unusually large decreases in fruits and vegetables. Food costs in all cities were well above the average of September 1941, the increase ranging from 9.7 percent in Chicago to 23.2 percent in Los Angeles.

Indexes of food costs by cities are presented in table 4 for May, August, and September 1942 and September 1941.

TABLE 4.—*Indexes of the Average Retail Cost of All Foods, by Cities,*[1] *May, August, and September 1942 and September 1941*

[1935–39=100]

Region and city	1942			1941
	Sept. 15[2]	Aug. 18	May 12	Sept. 16
United States	126.6	126.1	121.6	110.7
New England:				
Boston	124.4	122.5	118.3	108.4
Bridgeport	127.1	126.4	121.3	110.1
Fall River	125.7	125.4	120.8	109.5
Manchester	126.8	125.2	124.0	110.4
New Haven	126.2	125.2	120.6	108.5
Portland, Maine	125.8	125.8	121.7	109.2
Providence	126.3	126.1	122.1	110.8
Middle Atlantic:				
Buffalo	127.6	127.6	125.2	114.1
Newark	128.0	127.0	120.9	109.4
New York	125.2	125.1	118.0	109.8
Philadelphia	123.9	124.0	119.4	107.5
Pittsburgh	125.9	125.0	121.4	111.9
Rochester	125.2	125.2	122.3	111.1
Scranton	125.6	125.5	121.0	110.3
East North Central:				
Chicago	125.1	125.5	121.7	114.0
Cincinnati	126.9	125.8	122.4	110.0
Cleveland	127.3	[4]125.8	124.1	114.1
Columbus, Ohio	119.6	119.2	118.6	107.6
Detroit	124.7	123.7	122.4	108.9
Indianapolis	127.1	126.9	125.0	111.3
Milwaukee	121.0	121.7	119.8	109.2
Peoria	130.7	[4]130.2	129.0	115.2
Springfield, Ill	130.2	130.9	128.0	111.9
West North Central:				
Kansas City	120.7	121.2	118.8	107.3
Minneapolis	123.3	122.9	120.9	112.0
Omaha	123.2	121.4	119.9	108.2
St. Louis	126.7	129.0	123.8	114.5
St. Paul	120.8	119.7	118.7	108.2
South Atlantic:				
Atlanta	125.9	124.9	120.4	110.0
Baltimore	131.2	129.6	125.8	113.1
Charleston, S. C	126.6	125.2	123.2	111.0
Jacksonville	134.2	134.9	127.4	114.6
Norfolk[3]	131.9	131.6	126.1	113.1
Richmond	126.2	[4]125.6	120.9	109.9
Savannah	133.3	132.3	130.3	116.4
Washington, D. C	128.1	127.5	120.7	110.5
East South Central:				
Birmingham	125.3	126.1	120.5	109.0
Louisville	124.2	124.3	122.6	110.9
Memphis	129.7	132.1	123.5	110.6
Mobile	133.9	131.4	126.8	116.0
West South Central:				
Dallas	123.7	122.7	116.8	106.3
Houston	130.8	130.0	125.9	113.1
Little Rock	129.2	127.6	123.2	109.9
New Orleans	135.9	135.6	129.0	117.4
Mountain:				
Butte	124.6	123.6	121.5	108.8
Denver	126.8	126.0	122.9	107.3
Salt Lake City	130.1	128.8	124.2	109.1
Pacific:				
Los Angeles	137.9	136.8	128.1	111.9
Portland, Oreg	141.2	137.8	134.5	119.9
San Francisco	133.5	130.2	125.5	111.0
Seattle	137.3	136.1	129.9	117.0

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.

[2] Preliminary.

[3] Includes Portsmouth and Newport News.

[4] Revised.

Average Annual Indexes of Retail Food Costs, 1913 to 1941

Annual average indexes of food costs for the years 1913 to 1941, inclusive, and monthly indexes for January 1941 to July 1942, inclusive, are shown in table 5.

TABLE 5.—*Indexes of Retail Food Costs in 51 Large Cities Combined, by Years From 1913 to 1941, and by Months, January 1941 to September 1942*

[1935-39=100]

Year	All-foods index	Year	All-foods index	Year	All-foods index	Year	All-foods index
1913	79.9	1927	132.3	1941	105.5	November	113.1
1914	81.8	1928	130.8			December	113.1
1915	80.9	1929	132.5	*1941*			
1916	90.8	1930	126.0			*1942*	
1917	116.9	1931	103.9	January	97.8		
1918	134.4	1932	86.5	February	97.9	January	116.2
1919	149.8	1933	84.1	March	98.4	February	116.8
1920	168.8	1934	93.7	April	100.6	March	118.6
1921	128.3	1935	100.4	May	102.1	April	119.6
1922	119.9	1936	101.3	June	105.9	May	121.6
1923	124.0	1937	105.3	July	106.7	June	123.2
1924	122.8	1938	97.8	August	108.0	July	124.6
1925	132.9	1939	95.2	September	110.7	August	126.1
1926	137.4	1940	96.6	October	111.6	September	126.6

ELECTRICITY AND GAS [1]

Price Changes Between June and September 1942

ELECTRICITY

NO changes in filed rates for electricity for domestic use were reported between June 15 and September 15, 1942, in the 51 cities covered by the Bureau's regular quarterly survey. A small increase, ranging from 0.5 percent to 1.5 percent, in net monthly bills for domestic customers in New York, resulted from adjustments for costs of fuel.

GAS

Increases in prices of gas to domestic consumers were reported in four cities between June 15 and September 15, and a decline in prices was reported for one city. A list of the cities in which price changes occurred, classified by kind of gas served and by the nature of the change, is shown below. No change occurred in the price of mixed manufactured and natural gas (7 cities).

	Manufactured gas (24 cities)	*Natural gas (19 cities)*
Rate changes	Philadelphia.	Houston.
Adjustments for fuel costs	Boston. Portland, Maine. Providence.	

[1] Quarterly reports covering 51 cities for electricity and 50 cities for gas published in March, June, and September, show changes for the preceding 3 months. The December report presents prices effective on the 15th of December and a summary of all changes during the year.

In the New England cities increases resulted from higher costs of fuel as provided under "fuel clauses." The advance in Providence amounted to 1 percent for all customers. In Boston and Portland (Maine) the percent of increase became greater as the consumption increased. Higher costs for domestic customers ranged from about 2.5 percent for 10.6 therms to 3.2 percent for 40.6 therms in Boston; and from 4.3 to 6.7 percent, respectively, for those consumptions in Portland, Maine. Under a change in the rate schedule effective in Philadelphia, a decrease in the number of cubic feet included in the initial charge raised the cost of gas most for small consumers. Increases in net monthly bills ranged from about 5 percent for 10.6 therms to 1 percent for 40.6 therms.

A rate decrease for one of the three companies in Houston, together with a slight increase in the heating value of the gas served, lowered costs from 10.9 percent for 10.6 therms, up to 14.1 percent for 40.6 therms, for about 7.5 percent of the domestic consumers in the city.

Wholesale Prices

WHOLESALE PRICES IN SEPTEMBER 1942[1]

EXCEPT for advances of more than 1.5 percent for farm products and foods, there were few changes in primary commodity markets[2] during September. The Bureau of Labor Statistics index of about 900 series rose 0.4 percent to a 16-year peak, as a result of higher prices for these commodities, largely grains and dairy products. Price changes for industrial commodities—nearly all of which are under Government regulation—were few and for the most part downward. Since September 1941 average prices in primary markets have risen 8.5 percent, nearly 33 percent higher than in August 1939.

In addition to increases of 1.6 percent in average prices for farm products and foods during September, building materials rose 0.1 percent. Textile products and housefurnishing goods declined 0.2 percent, while hides and leather products and miscellaneous commodities dropped 0.1 percent. The level of prices for fuel and lighting materials, metals and metal products, and chemicals and allied products—many of which were placed under price ceilings in 1941—remained unchanged from the August average.

Prices for most commodities were considerably higher in September than at the same time last year. Among the outstanding increases were nearly 40 percent for fruits and vegetables, 23.5 percent for drugs and pharmaceuticals, over 20 percent for livestock and poultry, and for automobile tires, and from 10 to 20 percent for "other farm products," dairy products, meats, cotton goods, woolen and worsted goods, motor vehicles, and oils and fats.

Following the outbreak of the war prices for nearly all commodities rose rapidly. In September prices for industrial fats and oils were 150 percent higher than in August 1939. Grains, livestock and poultry, and cattle feed increased more than 80 percent; "other farm products," and cotton goods, over 70 percent; fruits and vegetables, and drugs and pharmaceuticals, more than 60 percent; dairy products, meats, "other foods," hides and skins, and "other textile products," over 50 percent; lumber, more than 40 percent; clothing and crude rubber, about 30 percent; cereal products, shoes, leather, motor vehicles, paint and paint materials, furniture, automobile tires, and

[1] During the period of rapid changes caused by price controls, materials allocation, and rationing, the Bureau of Labor Statistics will attempt promptly to report changing prices. Indexes marked (*), however, must be considered as preliminary and subject to such adjustment and revision as required by later and more complete reports.

[2] The Bureau of Labor Statistics wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points.

paper and pulp, well over 20 percent; and "other leather products," hosiery and underwear, coal, coke, nonferrous metals, plumbing and heating equipment, "other building materials," chemicals, fertilizer materials, mixed fertilizers, furnishings, and "other miscellaneous commodities," rose more than 10 percent.

A marked advance in the grain market during September largely accounted for the rise in the farm products group index. Rye was over 16 percent higher; wheat, nearly 70 percent; oats, 4.5 percent; and barley, 2.5 percent; while corn declined slightly. Livestock prices averaged moderately under the August level, with ewes down 4 percent; hogs and cows, over 1 percent; and steers, fractionally lower. In addition to higher prices for live poultry, calves, wethers, and lambs also advanced. Quotations for fresh milk in the New York, Chicago, and San Francisco markets advanced sharply in September. Prices were also higher for cotton, tobacco, peanuts, dried beans, apples, lemons, and hops. Oranges, seeds, hay, onions, and potatoes declined. Average prices for farm products are 18.5 percent higher than at this time last year and nearly 77 percent higher than in August 1939.

Continued advances occurred in prices for dairy products. These, together with higher prices for most cereal products, canned and dried fruits, and ham and dressed poultry, were the major food products which contributed to the rise in the foods group index. Ceiling prices for rice were adjusted downward and quotations for canned asparagus and spinach, fresh beef, mutton, bacon, and cottonseed and olive oils declined.

The index for hides and leather products dropped slightly as a result of a further decline in prices for Brazilian goatskins.

Prices for overalls and denim, sateen, certain cotton yarns, and twine, and for men's cotton undershirts declined in September. Raw jute advanced about 1.5 percent.

Increases were reported in prices of gasoline in the midcontinent area, while at the California fields prices declined.

During September, bar silver advanced 27 percent because of Office of Price Administration action permitting domestic refineries to pass on an increase authorized in Mexican ores and concentrates designed to stimulate production for war purposes.

The movement in prices for lumber varied in September. Quotations were somewhat higher for oak, red cedar shingles, sugar pine, and certain types of Ponderosa pine. Lower prices were reported for red gum, Northern and Idaho white pine, and for maple flooring. Rosin and turpentine advanced sharply, while linseed oil and chrome colors declined.

Except for lower prices for synthetic camphor, ammonium sulfate, sulfur oil, and fatty acids, there were few changes in chemicals and allied products markets in September.

Lower prices were reported for soap, cylinder oils, and boxboard. Cattle feed declined 1 percent.

Percentage comparisons of the September 1942 level of wholesale prices with August 1942, September 1941, and August 1939, with corresponding index numbers are given in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, September 1942, with Comparisons for August 1942, September 1941, and August 1939*

[1926=100]

Group and subgroup	September 1942	August 1942	Percent of change	September 1941	Percent of change	August 1939	Percent of change
All commodities	[1] 99.6	[1] 99.2	+0.4	91.8	+8.5	75.0	+32.8
Farm products	107.8	106.1	+1.6	91.0	+18.5	61.0	+76.7
Grains	93.6	89.8	+4.2	85.3	+9.7	51.5	+81.7
Livestock and poultry	122.1	122.6	−.4	101.1	+20.8	66.0	+85.0
Other farm products	102.2	99.9	+2.3	86.0	+18.8	60.1	+70.0
Foods	102.4	100.8	+1.6	89.5	+14.4	67.2	+52.4
Dairy products	105.5	100.2	+5.3	93.3	+13.1	67.9	+55.4
Cereal products	89.1	87.8	+1.5	85.8	+3.8	71.9	+23.9
Fruits and vegetables	97.5	98.0	−.5	70.7	+37.9	58.5	+66.7
Meats	116.0	115.2	+.7	99.4	+16.7	73.7	+57.4
Other foods	94.0	93.1	+1.0	86.5	+8.7	60.3	+55.9
Hides and leather products	118.1	118.2	−.1	111.3	+6.1	92.7	+27.4
Shoes	126.4	126.4	0	117.1	+7.9	100.8	+25.4
Hides and skins	118.0	118.8	−.7	112.1	+5.3	77.2	+52.8
Leather	101.3	101.3	0	100.0	+1.3	84.0	+20.6
Other leather products	115.2	115.2	0	106.3	+8.4	97.1	+18.6
Textile products	97.1	97.3	−.2	89.7	+8.2	67.8	+43.2
Clothing	107.0	107.2	−.2	96.1	+11.3	81.5	+31.3
Cotton goods	112.7	112.9	−.2	104.2	+8.2	65.5	+72.1
Hosiery and underwear	69.7	69.7	0	64.4	+8.2	61.5	+13.3
Rayon	30.3	30.3	0	29.8	+1.7	28.5	+6.3
Silk	[2]	[2]		[2]		44.3	
Woolen and worsted goods	111.7	111.7	0	101.4	+10.2	75.5	+47.9
Other textile products	97.8	97.9	−.1	95.0	+2.9	63.7	+53.5
Fuel and lighting materials	79.0	79.0	0	79.2	−.3	72.6	+8.8
Anthracite	85.7	85.7	0	84.5	+1.4	72.1	+18.9
Bituminous coal	110.4	110.0	+.4	107.2	+3.0	96.0	+15.0
Coke	122.1	122.1	0	122.2	−.1	104.2	+17.2
Electricity	[2]	62.2		66.7		75.8	
Gas	81.1	80.4	+.9	81.7	−6.5	86.7	−.7
Petroleum and products	60.6	60.7	−.2	61.7	−1.8	51.7	+17.2
Metals and metal products	[1] 103.8	[1] 103.8	0	98.6	+5.3	93.2	+11.4
Agricultural implements	96.9	96.9	0	93.4	+3.7	93.5	+3.6
Farm machinery	98.0	98.0	0	94.4	+3.8	94.7	+3.5
Iron and steel	97.2	97.2	0	96.9	+.3	95.1	+2.2
Motor vehicles	[1] 112.8	[1] 112.8	0	100.4	+12.4	92.5	+21.9
Nonferrous metals	86.0	85.6	+.5	84.4	+1.9	74.6	+15.3
Plumbing and heating	94.1	94.1	0	87.1	+8.0	79.3	+18.7
Building materials	110.4	110.3	+.1	106.4	+3.8	89.6	+23.2
Brick and tile	98.7	98.7	0	95.7	+3.1	90.5	+9.1
Cement	94.2	94.2	0	92.2	+2.2	91.3	+3.2
Lumber	133.2	133.0	+.2	129.1	+3.2	90.1	+47.8
Paint and paint materials	100.4	100.1	+.3	94.7	+6.0	82.1	+22.3
Plumbing and heating	94.1	94.1	0	87.1	+8.0	79.3	+18.7
Structural steel	107.3	107.3	0	107.3	0	107.3	0
Other building materials	103.8	103.8	0	100.2	+3.6	89.5	+16.0
Chemicals and allied products	96.2	96.2	0	87.4	+10.1	74.2	+29.6
Chemicals	96.3	96.3	0	88.2	+9.2	83.8	+14.9
Drugs and pharmaceuticals	128.9	129.0	+.1	104.4	+23.5	77.1	+67.2
Fertilizer materials	78.2	78.3	−.1	76.6	+2.1	65.5	+19.4
Mixed fertilizers	82.8	82.8	0	77.1	+7.4	73.1	+13.3
Oils and fats	101.5	101.6	−.1	91.3	+11.2	40.6	+150.0
Housefurnishing goods	102.5	102.7	−.2	97.2	+5.5	85.6	+19.7
Furnishings	107.4	107.9	−.5	102.1	+5.2	90.0	+19.3
Furniture	97.4	97.4	0	92.2	+5.6	81.1	+20.1
Miscellaneous	88.8	88.9	−.1	85.1	+4.3	73.3	+21.1
Automobile tires and tubes	73.0	73.0	0	60.8	+20.1	60.5	+20.7
Cattle feed	124.2	125.4	−1.0	126.2	−1.6	68.4	+81.6
Paper and pulp	98.8	98.9	−.1	101.7	−2.9	80.0	+23.5
Rubber, crude	46.3	46.3	0	47.1	−1.7	34.9	+32.7
Other miscellaneous	92.7	93.0	−.3	91.0	+1.9	81.3	+14.0
Raw materials	102.2	101.2	+1.0	90.0	+13.6	66.5	+53.7
Semimanufactured articles	92.9	92.7	+.2	90.3	+2.9	74.5	+24.7
Manufactured products	[1] 99.2	[1] 98.9	+.3	92.8	+6.9	79.1	+25.4
All commodites other than farm products	[1] 97.7	[1] 97.5	+.2	91.9	+6.3	77.9	+25.4
All commodities other than farm products and foods	[1] 95.5	[1] 95.6	−.1	91.6	+4.3	80.1	+19.2

[1] Preliminary.

[2] Data not available.

Index Numbers by Commodity Groups, 1926 to September, 1942

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1941, inclusive, and by months from September 1941 to September 1942, inclusive, are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
1941:											
September	91.0	89.5	111.3	89.7	79.2	98.6	106.4	87.4	97.2	85.1	91.8
October	90.0	88.9	112.6	90.9	79.6	103.1	107.3	89.7	99.5	86.4	92.4
November	90.6	89.3	114.1	91.1	78.8	103.3	107.5	89.8	100.6	87.3	92.5
December	94.7	90.5	114.8	91.8	78.4	103.3	107.8	91.3	101.1	87.6	93.6
1942:											
January	100.8	93.7	114.9	93.6	78.2	103.5	109.3	96.0	102.4	89.3	96.0
February	101.3	94.6	115.3	95.2	78.0	103.6	110.1	97.0	102.5	89.3	96.7
March	102.8	96.1	116.7	96.6	77.7	103.8	110.5	97.1	102.6	89.7	97.6
April	104.5	98.7	119.2	97.7	77.7	103.8	110.2	97.1	102.8	90.3	98.7
May	104.4	98.9	118.8	98.0	78.0	103.9	110.1	97.3	102.9	90.5	98.8
June	104.4	99.3	118.2	97.6	78.4	103.9	110.1	97.2	102.9	90.2	98.6
July	105.3	99.2	118.2	97.1	79.0	103.8	110.3	96.7	102.8	89.8	98.7
August	106.1	100.8	118.2	97.3	79.0	*103.8	110.3	96.2	102.7	88.9	*99.2
September	107.8	102.4	118.1	97.1	79.0	*103.8	110.4	96.2	102.5	88.8	*99.6

*Preliminary.

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials,

TABLE 3.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	1942:					
1929	97.5	93.9	94.5	93.3	91.6	January	96.1	91.7	96.4	94.8	94.6
1932	55.1	59.3	70.3	68.3	70.2	February	97.0	92.0	97.0	95.5	94.9
1933	56.5	65.4	70.5	69.0	71.2	March	98.2	92.3	97.8	96.2	95.2
1937	84.8	85.3	87.2	86.2	85.3	April	100.0	92.8	98.7	97.2	95.6
1938	72.0	75.4	82.2	80.6	81.7	May	99.7	92.9	99.0	97.4	95.7
1939	70.2	77.0	80.4	79.5	81.3	June	99.8	92.8	98.6	97.1	95.6
1940	71.9	79.1	81.6	80.8	83.0	July	100.1	92.8	98.6	97.0	95.7
1941	83.5	86.9	89.1	88.3	89.0	August	101.2	92.7	*98.9	*97.5	*95.6
1941:						September	102.2	92.9	*99.2	*97.7	*95.5
September	90.0	90.3	92.8	91.9	91.6						
October	89.7	89.9	93.9	92.8	93.4						
November	90.2	89.7	93.8	92.7	93.5						
December	92.3	90.1	94.6	93.3	93.7						

*Preliminary.

semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 to 12 of Wholesale Prices, December and year 1941 (Serial No. R. 1434).

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during August and September 1942 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, August and September 1942*

[1926=100]

Commodity group	Sept. 26	Sept. 19	Sept. 12	Sept. 5	Aug. 29	Aug. 22	Aug. 15	Aug. 8	Aug. 1
All commodities	*99.4	*99.3	*99.2	*99.1	*98.9	*98.9	*98.9	*98.6	*98.6
Farm products	107.3	107.1	107.2	106.7	106.0	106.4	106.0	105.4	105.6
Foods	102.0	102.0	101.6	101.4	100.7	100.8	100.5	99.7	100.1
Hides and leather products	118.4	118.6	119.0	119.0	118.9	118.9	118.8	118.8	118.8
Textile products	96.7	96.6	96.7	96.7	96.6	96.5	96.5	96.5	96.5
Fuel and lighting materials	79.6	79.6	79.6	79.6	79.6	79.6	79.7	79.6	79.6
Metals and metal products	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9
Building materials	110.5	110.4	110.3	110.3	110.3	110.3	110.2	110.2	110.0
Chemicals and allied products	96.2	96.2	96.2	96.2	96.2	96.2	96.3	96.3	96.4
Housefurnishing goods	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.4	104.4
Miscellaneous	88.6	88.6	88.6	88.6	88.6	88.6	89.0	88.9	89.1
Raw materials	101.5	101.5	101.6	101.2	100.8	101.0	100.8	100.4	100.5
Semimanufactured articles	92.8	92.8	92.7	92.7	92.6	92.6	92.6	92.6	92.6
Manufactured products	*99.5	*99.4	*99.3	*99.2	*99.2	*99.1	*99.1	*98.9	*98.8
All commodities other than farm products	*97.7	*97.6	*97.5	*97.5	*97.4	*97.3	*97.3	*97.2	*97.1
All commodities other than farm products and foods	*95.7	*95.7	*95.7	*95.7	*95.7	*95.7	*95.8	*95.7	*95.8

*Preliminary.

Trend of Employment and Unemployment

SUMMARY OF REPORTS OF EMPLOYMENT FOR SEPTEMBER 1942

THE total number of employees in civil nonagricultural establishments increased by 501,000 between mid-August and mid-September, and by 2,247,000 between September 1941 and September 1942. The total number employed amounted to 38,303,000, the highest on record. These figures do not include proprietors of unincorporated businesses, self-employed persons, unpaid family workers, domestics employed in private homes, personnel of the WPA, NYA, and CCC, and the uniformed personnel of the Army, Navy, Marine Corps, and Coast Guard. They are based on preliminary September and revised August reports.

About half of the increase over the month interval was in manufacturing industries. Federal, State, and local government employment increased by 223,000. Approximately three-fifths of this increase was due to gains in State and local government, chiefly as a result of the reopening of schools after the summer vacation. Despite Government restrictions affecting the sale of civilian goods, a seasonal increase in retail trade offset a contraseasonal decline in wholesale trade sufficiently to cause a net gain of 66,000 in the group as a whole. Small gains were reported for the finance-service-miscellaneous division and the transportation and public utilities group. Contract and Federal force-account construction employment was reduced by 62,000, primarily because of recessions in private building; and mining employment fell off 7,000, largely as a result of reductions in metal mining.

The gain of 1,664,000 in manufacturing employment over the year interval represented about three-fourths of the 2¼ million increase in nonagricultural establishments. Federal, State, and local government offices reported 980,000 more workers, resulting chiefly from expansion in the War and Navy Departments, while the transportation and public utilities group and the finance-service-miscellaneous group reported smaller gains over the year interval. The largest decline since September a year ago was in trade (446,000), reflecting the effects of Government restrictions. Mining and construction employment decreased by 73,000 and 65,000 respectively.

Industrial and Business Employment

Increases in employment between mid-August and mid-September were shown by 72 of the 157 manufacturing and by 4 of the 16 nonmanufacturing industries surveyed monthly by the Bureau of Labor Statistics. Gains in pay rolls were reported by 77 of the manufacturing and 11 of the nonmanufacturing industries.

Factory wage-earner employment again showed an increase (1.6 percent) over the month, continuing the virtually unbroken succession of monthly gains that began in June 1940 when the defense program was inaugurated. In that month the index stood at 103.1 percent of the 1923–25 average, as compared with 148.2 for the current month. The corresponding pay-roll index advanced 2.7 percent over the month to 220.5, a gain of about 120 percent over the June 1940 index (99.5). The fact that pay rolls had advanced about three times as much as employment over this period was due primarily to increased working hours, overtime premiums, wage-rate increases, and expansion in war industries where relatively high wage scales prevail. The gains between September 1941 and September 1942 were 9.6 percent in employment and 35.6 percent in weekly wages.

The September gains of 1.7 percent in employment and 3.1 percent in pay rolls in the durable-goods group of manufacturing industries were due chiefly to continued expansion in such strategic industries as shipbuilding, aircraft, automobiles, electrical machinery, engines, radios, foundries and machine shops, and machine tools. The gain of 4.4 percent in employment in the automobile industry was the fifth successive monthly increase, indicating rapidly rising war production in converted automobile plants. A larger-than-seasonal gain of 30.5 percent in canning employment was chiefly rseponsible for the increase of 1.6 percent in the nondurable-goods group.

Many industries continued to report employment declines, due primarily to material shortages and freeze orders. Among them were cast-iron pipe; cutlery; plumbers' supplies; tin cans and other tinware; business machines; lighting equipment; smelting and refining of copper, lead, and zinc; hosiery; fur-felt hats; and silk and rayon goods.

Employment in wholesale trade fell off contraseasonally 0.9 percent, as a result of recessions in each of the larger wholesale groups except grocery and food specialties, which reported a gain of 0.7 percent, and farm products, where employment increased seasonally by 9.2 percent. Employment in the wholesale automotive group fell off 3.7 percent; in petroleum and petroleum products, 2.2 percent; and in dry goods and apparel, 1.4 percent. The corresponding decreases over the year interval were 20, 8, and 12 percent.

In retail trade, employment increased seasonally over the month interval by 2.6 percent. Fall buying was reflected in employment gains of 7.8 percent in department stores, 16.9 percent in women's clothing stores, 5.1 percent in men's and boys' clothing and furnishings stores, 6.2 percent in family clothing stores, and 17.9 percent in shoe stores. Government restrictions on the manufacture and sale of civilian goods continued to affect employment in various retail lines, such as retail automobile establishments, tire and battery shops, electrical appliance and radio stores, and establishments dealing in building materials.

In metal mining, employment declined by 3 percent between August and September, reflecting a labor shortage in this field. The decline since September 1941 amounted to 1.3 percent, but pay rolls showed an increase of 20.3 percent due to longer working hours, overtime premiums, and increases in basic wage rates. Despite employment

declines over the month interval in coal mining, quarrying and nonmetallic mining, and crude-petroleum production, pay rolls showed substantial gains indicating wage increases and increased production. All of these industries reported substantial employment declines since September 1941, but their pay rolls were higher.

The employment decline over the month of 2.1 percent reported by electric light and power companies continued the recession shown each month since September 1941. Telephone and telegraph companies had about the same number at work in September as in August, while street-railway and bus companies reported a slight increase in the number at work, continuing the uninterrupted monthly gains that began in February 1942. The gains over the year interval in the latter industry were 7.2 percent in employment and 20.4 percent in pay rolls, reflecting the increased demand for public transportation. Employment declines were general in the service industries, partly because of the difficulty of replacing workers drawn into the armed forces or into war industries.

A preliminary report of the Interstate Commerce Commission for class I steam railroads showed an employment decline of 0.1 percent between August and September, the total number employed in September being 1,321,546. Corresponding pay rolls for September were not available when this report was prepared. For August they were $256,971,330, an increase of $3,705,682 since July.

Hours and earnings.—Average hours worked per week by manufacturing wage earners were 42.4 in September, a decrease of 1.1 percent since August. The corresponding average hourly earnings were 88.5 cents, an increase of 2.4 percent over the preceding month. The average weekly earnings of wage earners (both full- and part-time combined) were $40.05, an increase of 1.3 percent since August. Of the 16 nonmanufacturing industries regularly surveyed, 12 showed increases in average weekly earnings. Of the 14 nonmanufacturing industries for which man-hour information is available, 9 reported increases in average weekly hours and 12 showed gains in average hourly earnings.

Wage-rate increases between August 16 and September 15, averaging 7.4 percent and affecting 710,229 wage earners, were specifically reported by 1,468 manufacturing establishments out of a reporting sample of about 35,000 establishments employing approximately 9,000,000 workers. Most of the wage earners receiving increases were in the following manufacturing industries: Cotton goods, electrical machinery, steel, and engines. In the nonmanufacturing industries the largest number of workers affected by wage-rate increases were reported by the public utilities (21,106) and by crude-petroleum production companies (8,573).

Employment and pay-roll indexes and average weekly earnings for August and September 1942 and September 1941 are given where available in table 1 for all manufacturing industries combined, for selected nonmanufacturing industries, water transportation, and class I steam railroads.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, September and August 1942 and September 1941*

[Preliminary figures]

Industry	Employment index			Pay-roll index			Average weekly earnings		
	September 1942	August 1942	September 1941	September 1942	August 1942	September 1941	September 1942	August 1942	September 1941
	(1923–25=100)			(1923–25=100)					
All manufacturing industries combined	148.2	145.9	135.2	220.5	214.7	162.6	$40.05	$39.54	$32.06
	(1935–39=100)								
Class I steam railroads [1]	129.5	129.6	118.7	(2)	(2)	(2)	(2)	(2)	(2)
Coal mining:	(1929=100)			(1929=100)					
Anthracite	46.7	46.7	50.0	50.5	48.2	49.6	35.61	34.00	32.60
Bituminous	91.7	92.3	94.2	121.9	118.6	115.5	35.30	34.13	32.75
Metalliferous mining	78.3	80.7	79.4	103.3	106.5	85.9	41.20	41.22	34.04
Quarrying and nonmetallic mining	50.7	51.5	54.2	70.2	67.4	60.5	34.38	32.47	28.07
Crude-petroleum production	55.7	56.7	61.8	64.6	62.4	64.4	41.38	40.14	38.28
Public utilities:									
Telephone and telegraph	93.8	93.8	90.3	132.5	127.4	117.3	34.51	33.19	31.75
Electric light and power	84.1	85.9	94.9	111.9	112.8	115.0	40.16	39.61	36.81
Street railways and busses	75.3	75.0	70.3	94.0	93.8	78.1	40.40	40.46	36.20
Trade:									
Wholesale	89.4	90.3	95.6	92.1	91.8	90.9	36.43	35.99	33.28
Retail	91.7	89.4	100.0	93.3	91.4	95.8	23.53	23.66	22.11
Hotels (year-round) [3]	93.0	93.4	95.7	97.5	96.6	90.0	18.01	17.75	16.27
Laundries	117.0	117.4	113.0	117.8	116.8	105.2	21.11	20.85	19.33
Dyeing and cleaning	123.2	123.7	121.5	108.5	106.4	99.5	24.54	23.95	22.69
Brokerage [4]	−3.0	−2.6	−22.4	−1.1	−3.8	−20.5	41.30	40.49	39.79
Insurance [4]	−1.4	−.4	−2.5	−1.5	−.8	+2.8	37.71	37.77	37.25
Building construction [4]	−3.9	−3.1	−29.7	−.1	−2.2	−13.5	45.40	43.79	37.10
Water transportation [5]	71.4	69.4	78.5	+10.2	+.4	+51.0	(2)	(2)	(2)

[1] Preliminary; source—Interstate Commerce Commission.
[2] Not available.
[3] Cash payments only; the additional value of board, room, and tips cannot be computed.
[4] Indexes of employment and pay rolls not available. Percentage changes from August to September 1942, July to August 1942, and September 1941 to September 1942 substituted.
[5] Based on estimates prepared by the U. S. Maritime Commission covering steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only. Pay-roll data include war bonuses and value of subsistence and lodging. Pay-roll indexes on 1929 base not available. Percentage changes from August to September 1942, July to August 1942, and September 1941 to September 1942 substituted.

Public Employment

The Federal Government employed 2,559,000 persons in September 1942 in the executive, legislative, and judicial services—an increase of 45,300 from August 1942 and of 1,062,000 from September 1941. Over four-fifths of these monthly increases were in the War and Navy Departments. Federal employment inside the District of Columbia, which had shown a slight decrease in August 1942, again rose 6,000 persons in September to a total of 288,000. Pay rolls for the regular Federal services rose 84 percent from September 1941 to September 1942 and 4 percent during the last month.

Federally financed construction and shipbuilding showed increases of 150 percent in employment and 202 percent in pay rolls from September 1941 to September 1942, totaling 2,230,000 and $429,496,000, respectively, in the latter month. The net increase of 1,000 workers from August to September 1942 was the result of continued increases on naval and merchant vessel construction and water and sewerage projects, partially offset by declines on completed airport, nonresidential building, and plant expansion and facilities construction projects. One out of every 8 of these workers

was employed directly by the Government; the others were on the pay roll of firms holding Government contracts.

Personnel on the war production training program of the National Youth Administration declined 20,600 during September to a total of 102,000 persons for whom the monthly pay roll was $2,648,000, not including the value of subsistence provided youths in residence. Although prior to July 1942 the value of subsistence was included in the pay-roll figures, the pay roll per person has not declined in August and September because of the shift of the NYA program from a work-relief to a war production training program and the consequent need for supervisors with more technical training (in forging, machine shop, radio, and sheet metal work), as well as for a larger proportion of supervisory employees. The student work program of the NYA added 1,300 persons in September.

The WPA and CCC programs dropped 46,200 and 3,360 persons, respectively, in September, leaving personnel of 401,000 and 2,300. A year ago personnel on the two programs was 1,037,000 and 190,000. Total payments to WPA and CCC personnel in September 1942 amounted to $27,849,000, as compared with $70,499,000 a year ago.

For the regular Federal services, data for the legislative, judicial, and force-account employees are reported to the Bureau of Labor Statistics by the respective offices; for the executive-service employees data are reported through the Civil Service Commission. The Bureau of Labor Statistics receives monthly reports on employment and pay rolls for the various construction projects financed wholly or partially by Federal funds directly from the contractors and subcontractors, and for the work-relief programs from the respective agencies.

A summary of employment and pay-roll data for the regular Federal services, construction projects financed wholly or partially from Federal funds, and for other Federal programs is given in table 2.

TABLE 2.—*Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially From Federal Funds, September 1941 and August and September 1942*

[Subject to revision]

Class	Employment			Pay rolls		
	September 1942	August 1942	September 1941	September 1942	August 1942	September 1941
Federal services:						
Executive [1]	2,549,474	2,504,202	1,487,925	$414,594,644	$398,527,818	$224,140,668
Judicial	2,672	2,662	2,571	672,500	672,355	661,970
Legislative	6,527	6,517	6,279	1,389,402	1,390,825	1,352,151
Construction projects:						
Financed from regular Federal appropriations [2]	2,046,559	2,037,568	787,968	398,015,354	392,327,097	127,651,311
War	1,924,287	1,921,932	628,051	376,953,163	372,260,485	107,095,641
Other	122,272	115,636	159,917	21,062,191	20,066,612	20,555,670
Public housing [3]	80,066	79,977	85,625	12,096,854	12,283,667	11,308,727
War public works	9,185	8,540	([4])	1,173,859	1,030,692	([4])
Financed by PWA	71	51	4,003	14,262	7,149	525,514
Financed by RFC [5]	93,911	102,662	14,553	18,196,054	17,633,626	2,662,639
War	91,755	100,445	12,475	17,812,978	17,241,453	2,355,073
Other	2,156	2,217	2,078	383,076	392,173	307,566
Other programs:						
Work Projects Administration projects	401,050	447,267	1,036,981	27,104,865	31,603,768	61,224,870
War	([6])	167,746	335,296	([6])	12,218,407	19,867,586
Other	([6])	279,521	701,685	([6])	19,385,361	41,357,284
National Youth Administration [7]	103,040	122,311	346,290	2,657,781	2,916,877	7,603,643
Student work program	1,324	----------	34,216	9,717	----------	151,366
War production training program [7 8]	101,716	122,311	312,074	2,648,064	2,916,877	7,452,277
Civilian Conservation Corps	2,730	5,648	190,224	532,815	941,465	9,273,943

[1] Includes force-account employees also included under construction projects, and supervisory and technical employees also included under CCC. Data for public employment offices which were federalized in January 1942 are included for August and September 1942. Data for the War Department for August 1942 were estimated.

[2] Includes new Federal ship construction.

[3] Includes all Federal housing projects, including those formerly under the United States Housing Authority.

[4] Program not in operation.

[5] Includes employees and pay roll of the RFC Mortgage Co.

[6] Data not available.

[7] Beginning July 1942 the National Youth Administration was considered a training program for war work, rather than a work-relief program. Value of maintenance is included in the pay-roll data for September 1941, but excluded from August and September 1942.

[8] Called the out-of-school work program prior to July 1942.

DETAILED REPORTS FOR INDUSTRIAL AND BUSINESS EMPLOYMENT, AUGUST 1942

Estimates of Nonagricultural Employment

ESTIMATES of civil employees in nonagricultural establishments by major groups are given in table 1. With the exception of the trade and finance-service-miscellaneous groups, they are not comparable with estimates published in the September 1942 or prior issues of the Monthly Labor Review. Revisions for the years 1929 to 1939 are contemplated, and comparable figures for the months from January 1939 to July 1942 are given in the October 1942 issue of the Monthly Labor Review.

The estimates are based on reports of employers to the United States Bureau of Labor Statistics; on data made available by the Bureau of Employment Security of the Social Security Board and the Bureau of

Old-Age and Survivors Insurance, covering employment figures reported under the State Unemployment Compensation programs and the Federal Old-Age and Survivors Insurance System; and on information supplied by other Government agencies, such as the Interstate Commerce Commission, Civil Service Commission, and the Bureau of the Census. They do not include military personnel, emergency employment (such as WPA, NYA, and CCC), proprietors, self-employed persons, unpaid family workers, and domestics.

Estimates of total nonagricultural employment have been discontinued as they have recently been made available through the Census Bureau's Monthly Report on the Labor Force.

Estimates of employees in nonagricultural establishments by States are given each month in the Bureau of Labor Statistics' mimeographed release on employment and pay rolls.

TABLE 1.—*Estimates of Employment in Nonagricultural Establishments by Industry Divisions* [1]

[In thousands]

Industry division	August 1942 (preliminary)	July 1942	Change, July to August 1942	August 1941	Change, August 1941 to August 1942
Total [2]	37,789	37,234	+555	35,457	+2,332
Manufacturing	14,978	14,641	+337	13,337	+1,641
Mining	918	923	−5	979	−61
Contract construction and Federal force-account construction	2,131	2,108	+23	2,173	−42
Transportation and public utilities	3,533	3,519	+14	3,401	+132
Trade	6,491	6,504	−13	6,897	−406
Finance, service, and miscellaneous	4,349	4,355	−6	4,300	+49
Federal, State, and local government	5,389	5,184	+205	4,370	+1,019

[1] Comparable series January 1939 to July 1942 in October 1942 Monthly Labor Review.

[2] Estimates exclude proprietors of unincorporated businesses, self-employed persons, domestics employed in private homes, public emergency employees (W. P. A., N. Y. A., and C. C. C.), and personnel in the armed forces.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 157 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission.

The employment, pay-roll, hours, and earnings figures for manufacturing, mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, while for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and in-

surance, to approximately 80 percent for public utilities, and 90 percent for mining.

The general manufacturing indexes are computed from reports supplied by representative manufacturing establishments in 90 of the 157 industries surveyed. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries covered.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings shown in table 2 are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown.

EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND EARNINGS

Employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for June, July, and August 1942, where available, are presented in table 2. The June and July figures, where given, may differ in some instances from those previously published because of revisions necessitated primarily by the inclusion of late reports. Indexes of employment and pay rolls are given in table 3 for 55 additional manufacturing industries for the months of June, July, and August 1942. These indexes, based on 1939 as 100, are available in mimeographed form for the period from January 1939 to January 1941, inclusive.

In table 4 indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of 13 nonmanufacturing industries, by months, from August 1941 to August 1942, inclusive. The chart on page 1091 indicates the trend of factory employment and pay rolls from January 1919 to August 1942.

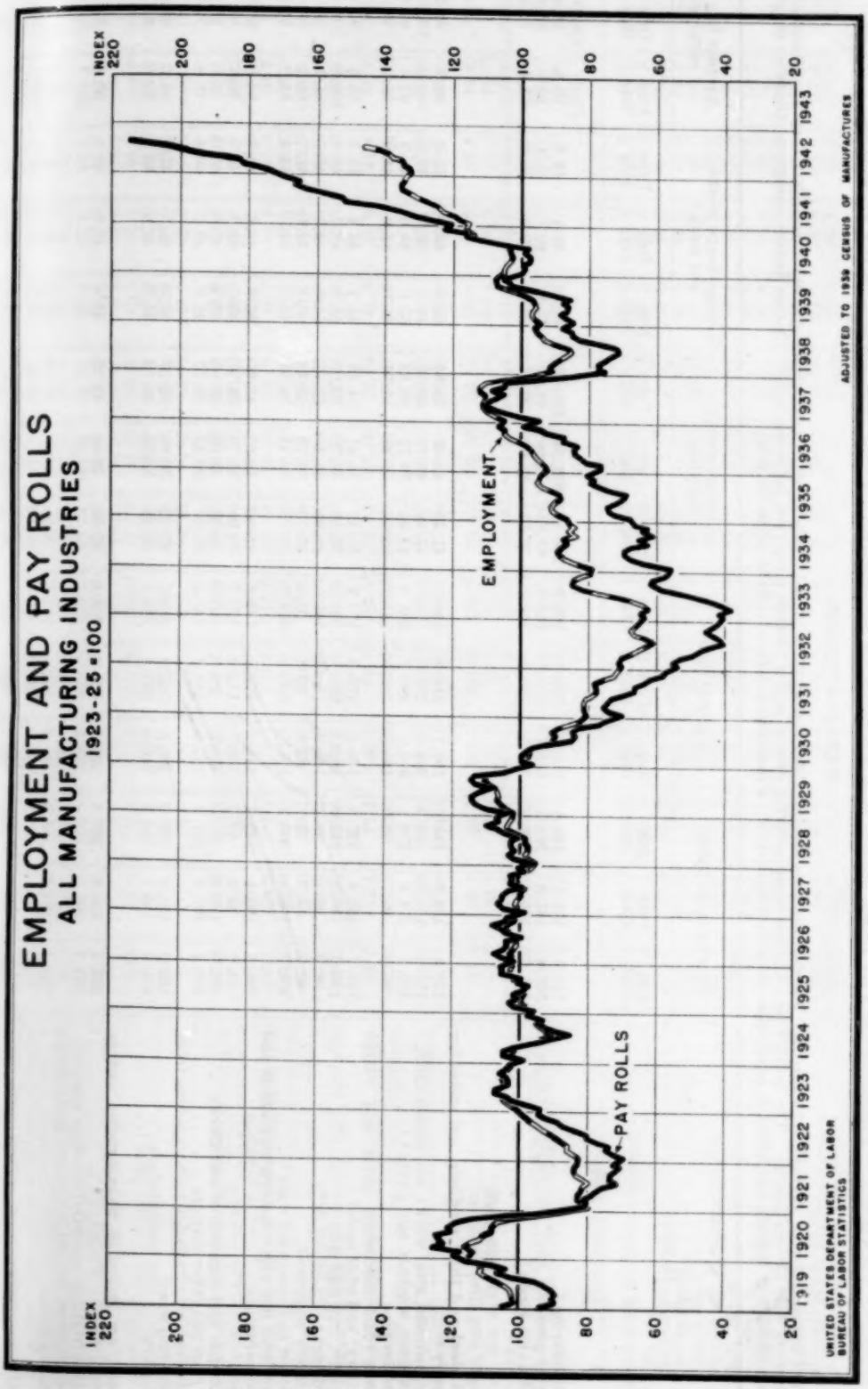

EMPLOYMENT AND PAY ROLLS
ALL MANUFACTURING INDUSTRIES
1923-25=100
INDEX
220
200
180
160
140
120
100
80
60
40
20
EMPLOYMENT
PAY ROLLS
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ADJUSTED TO 1939 CENSUS OF MANUFACTURES

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

MANUFACTURING

[Indexes are based on 3-year average, 1923–25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 Census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 Census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942
													Cents	*Cents*	*Cents*
All manufacturing [2]	**145.9**	**142.4**	**139.4**	**214.7**	**204.6**	**198.2**	**$39.54**	**$38.56**	**$37.99**	**42.8**	**42.4**	**42.6**	**86.4**	**85.0**	**84.0**
Durable goods [2]	**165.4**	**161.2**	**157.5**	**266.7**	**252.7**	**244.2**	**45.83**	**44.62**	**44.02**	**45.2**	**44.7**	**45.1**	**96.6**	**94.6**	**93.3**
Nondurable goods [2]	**127.2**	**124.6**	**122.2**	**156.6**	**150.8**	**146.7**	**29.12**	**28.66**	**28.32**	**39.9**	**39.6**	**39.6**	**73.8**	**73.2**	**72.7**
Durable goods															
Iron and steel and their products, not including machinery [3]	**134.8**	**135.0**	**135.5**	**192.1**	**188.2**	**186.1**	**41.29**	**40.46**	**39.84**	**42.8**	**42.0**	**42.6**	**96.7**	**94.3**	**93.7**
Blast furnaces, steel works, and rolling mills	150.6	151.6	152.2	202.8	202.0	198.1	42.22	41.77	40.85	40.8	39.9	40.8	103.0	100.4	99.9
Bolts, nuts, washers, and rivets [3 4]	175.7	174.8	176.1	316.5	290.7	291.4	42.94	39.72	39.52	45.6	44.0	44.3	92.3	89.8	89.1
Cast-iron pipe	93.5	93.7	96.0	135.0	132.0	135.7	34.66	33.80	33.94	44.6	44.0	44.0	78.0	77.3	76.9
Cutlery (not including silver and plated cutlery) and edge tools [3 4]	124.7	125.8	127.8	178.1	170.2	173.9	36.41	34.41	34.89	44.1	43.6	44.4	83.8	80.2	79.4
Forgings, iron and steel	135.2	133.5	131.6	248.4	241.1	241.8	50.57	49.70	50.62	47.3	48.1	48.4	106.8	103.4	104.3
Hardware [4]	96.7	95.4	93.4	158.9	150.7	145.3	39.61	38.40	37.77	45.5	44.7	45.7	87.1	85.2	82.7
Plumbers' supplies [5]	62.7	64.7	73.7	82.3	79.3	91.4	37.74	35.13	35.48	43.8	41.9	41.7	86.2	83.6	84.6
Stamped and enameled ware [3]	202.8	199.4	203.3	321.7	305.9	314.0	37.38	36.15	36.55	44.3	43.5	44.4	84.8	83.2	82.4
Steam and hot-water heating apparatus and steam fittings	124.5	120.1	119.7	185.4	172.8	172.3	43.96	42.65	42.67	46.8	45.6	46.2	94.0	92.2	92.3
Stoves	84.6	89.0	87.0	108.1	112.9	107.2	36.01	35.79	34.97	43.0	43.1	42.5	85.2	84.1	82.7
Structural and ornamental metalwork	124.9	121.4	118.2	174.6	159.0	155.0	44.87	41.66	41.63	47.2	45.8	46.0	94.6	91.0	90.5
Tin cans and other tinware	108.4	107.4	107.8	152.9	146.7	143.6	31.67	30.43	29.77	41.6	40.6	40.4	75.8	74.9	74.2
Tools (not including edge tools, machine tools, files, and saws)	152.2	151.6	155.2	236.8	233.7	244.7	40.22	39.84	39.27	47.3	46.3	47.7	84.6	83.0	82.3
Wirework	151.2	156.1	154.5	246.6	251.1	249.3	39.21	38.58	38.59	44.8	44.9	45.1	88.0	86.5	86.4
Machinery, not including transportation equipment [3]	**217.1**	**211.8**	**207.9**	**367.1**	**351.1**	**346.0**	**47.03**	**46.04**	**46.16**	**47.8**	**47.5**	**48.1**	**97.6**	**96.1**	**95.5**
Agricultural implements (including tractors)	163.3	165.4	167.2	259.5	255.4	262.7	43.72	42.36	43.07	43.2	42.5	43.1	101.4	100.0	100.2
Cash registers, adding machines, and calculating machines	181.1	185.2	185.9	289.3	294.7	293.6	49.98	49.79	49.40	47.0	46.8	47.3	107.3	107.5	105.4
Electrical machinery, apparatus, and supplies	(6)	(6)	(6)	(6)	(6)	(6)	43.31	42.57	42.62	46.5	46.1	46.4	93.8	93.2	92.6
Engines, turbines, water wheels, and windmills [3]	(6)	(6)	(6)	(6)	(6)	(6)	58.13	56.91	56.15	48.8	48.4	48.7	118.9	117.5	115.4
Foundry and machine-shop products	170.7	167.4	165.1	261.1	250.3	249.8	45.74	44.46	44.71	48.3	47.8	48.4	94.2	92.4	92.1
Machine tools	(6)	(6)	(6)	(6)	(6)	(6)	52.17	51.58	52.47	52.8	52.8	53.8	98.7	97.3	97.4
Radios and phonographs	211.4	197.4	191.4	313.4	293.1	284.4	36.72	36.77	36.50	43.3	45.5	45.7	83.7	80.3	79.9
							40.98	40.20	40.23	49.0	49.0	48.9	83.6	82.0	82.3

mills [5]	(6)	(6)	(6)	(6)	(6)	(6)	58.13	56.91	56.15	48.8	48.4	48.7	118.9	117.5	115.4
Foundry and machine-shop products	170.7	167.4	165.1	261.1	250.3	249.8	45.74	44.46	44.71	48.3	47.8	48.4	94.2	92.4	92.1
Machine tools	(6)	(6)	(6)	(6)	(6)	(6)	52.17	51.58	52.47	52.8	52.8	53.8	98.7	97.3	97.4
Radios and phonographs	211.4	197.4	191.4	313.4	293.1	284.4	36.72	36.77	36.50	43.3	45.5	45.7	83.7	80.3	79.9
Textile machinery and parts [3 4]	104.4	106.9	107.9	156.9	157.7	159.0	40.98	40.20	40.23	49.0	49.0	48.9	83.6	82.0	82.3
Typewriters and parts	93.3	98.7	103.4	146.6	148.9	160.6	38.51	37.01	38.07	46.2	44.4	45.2	83.4	83.4	84.2
Transportation equipment [3 7]	**311.2**	**292.2**	**271.7**	**519.1**	**475.3**	**435.1**	**52.16**	**50.93**	**50.10**	**46.5**	**46.4**	**46.7**	**111.4**	**109.1**	**107.1**
Aircraft [3]	(6)	(6)	(6)	(6)	(6)	(6)	46.09	46.03	46.67	46.7	46.6	47.2	99.3	99.2	99.3
Automobiles [8]	98.8	95.6	91.2	157.6	147.9	142.2	51.76	49.79	50.20	44.5	43.3	44.0	114.5	114.4	113.7
Cars, electric- and steam-railroad [4]	(6)	(6)	(6)	(6)	(6)	(6)	45.06	44.03	43.51	43.8	43.2	43.5	102.9	102.0	100.3
Locomotives [9]	(6)	(6)	(6)	(6)	(6)	(6)	52.90	50.66	48.29	47.4	46.8	46.1	110.7	108.3	104.8
Shipbuilding	(6)	(6)	(6)	(6)	(6)	(6)	56.93	55.07	52.73	47.7	48.2	48.4	118.8	113.8	108.8
Nonferrous metals and their products	**149.0**	**146.6**	**146.1**	**232.0**	**223.1**	**218.3**	**43.00**	**42.03**	**41.23**	**45.0**	**44.5**	**44.6**	**95.4**	**93.5**	**92.0**
Aluminum manufactures [10]	(6)	(6)	(6)	(6)	(6)	(6)	41.97	41.20	40.54	44.9	44.8	44.5	93.6	92.0	91.3
Brass, bronze, and copper products	(6)	(6)	(6)	(6)	(6)	(6)	48.02	46.79	45.81	46.5	45.7	45.9	104.7	102.7	100.0
Clocks and watches and time-recording devices	106.0	109.0	112.2	171.4	179.7	177.6	35.88	36.56	35.08	44.7	44.9	45.3	80.3	78.3	77.6
Jewelry	88.7	89.6	90.5	102.5	98.9	103.3	31.15	29.65	30.66	43.2	42.2	43.6	72.0	70.9	71.0
Lighting equipment	87.0	88.0	84.7	110.7	110.7	103.1	39.59	39.18	38.00	43.5	44.5	42.9	91.1	88.1	88.7
Silverware and plated ware	66.0	63.9	65.2	88.9	81.1	82.2	39.31	37.04	36.72	46.7	45.1	44.6	85.6	83.6	83.5
Smelting and refining—copper, lead, and zinc [4]	99.1	100.0	100.0	134.7	135.6	134.4	38.13	38.01	37.72	41.1	40.9	41.2	92.2	91.7	90.6
Lumber and allied products	**73.6**	**73.4**	**73.4**	**97.0**	**92.7**	**93.6**	**28.54**	**27.26**	**27.34**	**41.6**	**41.2**	**41.4**	**67.7**	**66.0**	**65.9**
Furniture	92.4	93.1	94.5	112.9	109.6	111.9	29.03	27.84	27.91	41.5	41.6	41.6	68.1	67.2	67.3
Lumber:															
Millwork [3]	74.2	72.7	71.3	83.0	77.0	74.6	31.49	30.06	29.63	43.7	43.1	42.9	72.4	69.8	69.0
Sawmills	65.7	65.6	65.3	87.2	83.3	84.5	27.34	26.07	26.26	41.2	40.4	40.7	66.4	64.6	64.6
Stone, clay, and glass products	**92.5**	**92.1**	**94.1**	**105.5**	**101.0**	**104.7**	**31.10**	**29.90**	**30.31**	**38.7**	**37.7**	**38.6**	**79.8**	**78.7**	**78.0**
Brick, tile, and terra cotta	68.2	69.1	69.9	72.5	71.9	73.0	27.99	27.38	27.56	38.4	38.2	39.2	72.7	71.4	70.8
Cement [4]	85.3	84.6	83.8	104.5	101.2	100.6	34.98	34.16	33.99	41.0	40.3	40.9	85.3	84.7	83.5
Glass	117.9	115.5	121.2	157.3	145.9	156.1	32.55	30.83	31.49	38.7	36.6	37.7	84.2	84.2	83.4
Marble, granite, slate, and other products	38.3	38.1	38.8	33.0	33.3	33.3	30.54	30.97	30.59	38.1	39.8	39.2	79.5	78.0	78.0
Pottery	115.4	115.5	117.2	133.9	126.6	132.7	29.52	27.84	28.81	37.6	36.7	37.9	78.8	76.0	75.9
Nondurable goods															
Textiles and their products	**109.6**	**108.2**	**108.8**	**131.1**	**124.3**	**123.1**	**24.65**	**23.73**	**23.45**	**38.8**	**38.2**	**38.6**	**62.7**	**61.1**	**60.3**
Fabrics	103.4	104.1	104.4	133.4	129.9	129.0	24.79	24.01	23.79	40.3	39.8	40.2	61.9	60.4	59.5
Carpets and rugs [3]	69.1	70.4	69.5	81.6	81.2	80.4	32.66	31.87	31.97	40.6	40.5	40.4	80.4	78.8	79.3
Cotton goods	114.1	114.5	114.5	158.1	150.9	153.2	22.39	21.35	21.63	40.8	40.4	41.0	54.9	52.8	52.8
Cotton smallwares	113.0	112.9	111.5	169.7	167.0	162.5	29.15	28.68	28.49	43.6	43.7	43.7	67.7	66.4	65.6
Dyeing and finishing textiles	127.1	128.0	128.2	148.3	145.0	142.9	28.25	27.42	27.21	41.5	41.6	41.3	68.2	66.4	65.8
Hats, fur-felt	55.7	62.7	65.2	59.7	63.2	66.6	29.63	27.84	28.11	34.4	32.6	33.4	87.6	85.8	83.8
Hosiery	118.6	118.3	119.9	157.0	145.5	148.2	23.20	21.61	21.75	37.3	35.6	36.0	62.6	61.0	60.2
Knitted outerwear	76.4	76.8	78.2	81.0	80.5	81.7	21.85	21.61	21.57	37.9	38.0	38.2	57.1	56.2	56.1
Knitted underwear	87.3	87.9	88.7	111.3	110.1	111.3	21.48	21.11	21.06	39.7	39.5	39.7	53.7	52.8	52.4
Knitted cloth	146.4	151.1	152.4	165.0	166.3	165.7	26.25	25.42	25.10	41.4	40.7	40.9	62.7	61.8	60.9
Silk and rayon goods	62.1	63.4	63.8	70.3	69.9	71.0	23.62	22.98	23.24	40.0	39.8	40.6	59.0	57.7	57.2
Woolen and worsted goods	104.6	105.6	105.8	142.4	144.2	134.2	31.43	31.63	29.44	40.5	40.8	40.5	77.4	77.0	72.9

See footnotes on pp. 1096–1097.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942	Aug. 1942	July 1942	June 1942
Nondurable goods—Continued															
Textiles and their products—Continued.													*Cents*	*Cents*	*Cents*
Wearing apparel	118.9	112.6	113.8	118.6	105.7	104.1	$24.26	$22.88	$22.47	35.9	34.7	35.1	64.2	62.8	61.6
Clothing, men's	117.7	114.7	118.0	113.8	107.8	111.7	24.79	23.92	24.06	35.4	34.8	35.1	69.5	68.3	68.2
Clothing, women's	154.8	141.3	140.0	142.7	120.3	109.7	25.20	23.28	21.42	36.2	34.5	34.7	63.1	61.7	58.1
Corsets and allied garments	104.5	96.9	109.1	134.8	124.3	143.3	21.41	21.43	21.83	36.7	36.7	37.6	58.6	58.0	57.8
Men's furnishings	112.0	110.8	110.6	143.6	138.6	139.9	19.09	18.67	19.00	35.5	35.3	36.3	53.1	52.6	52.0
Millinery	70.3	52.8	51.1	72.6	40.6	37.0	31.56	23.50	22.13	34.4	28.3	27.8	77.9	71.2	73.6
Shirts and collars	127.5	128.3	128.1	153.6	150.5	151.5	19.12	18.59	18.74	36.9	36.2	36.5	51.8	51.4	51.5
Leather and its manufactures	**94.1**	**96.2**	**97.1**	**107.4**	**110.2**	**109.7**	**26.37**	**26.46**	**26.09**	**38.2**	**38.1**	**38.1**	**68.7**	**68.7**	**68.5**
Boots and shoes	91.6	93.5	94.1	101.9	103.4	103.3	24.89	24.71	24.48	37.7	37.5	37.4	65.7	65.4	65.2
Leather	88.3	90.8	92.7	116.7	123.8	122.0	33.09	34.36	33.07	40.4	40.7	40.7	80.8	81.9	81.2
Food and kindred products	**167.4**	**156.7**	**141.9**	**196.7**	**186.5**	**170.1**	**29.61**	**30.21**	**30.30**	**41.5**	**41.9**	**41.5**	**73.2**	**73.5**	**74.3**
Baking	162.7	159.9	154.2	186.7	181.9	174.9	31.62	31.44	31.34	43.3	42.6	42.8	73.7	73.8	73.1
Beverages	339.3	327.9	312.8	488.7	467.7	423.8	42.28	41.89	39.72	43.2	42.7	41.1	98.4	98.8	97.3
Butter	122.3	124.3	124.6	131.9	131.3	128.8	27.97	27.41	26.86	47.7	47.6	47.4	58.8	57.5	56.2
Canning and preserving	281.9	215.5	134.6	350.1	273.6	157.5	23.47	24.14	22.19	38.9	40.9	37.6	60.9	59.7	59.9
Confectionery [4]	93.4	84.9	79.4	115.9	102.5	98.6	23.63	22.99	23.78	39.7	38.4	39.5	59.8	60.0	60.2
Flour [4]	81.3	80.9	79.3	104.0	98.0	92.3	34.33	32.49	31.16	46.5	45.3	44.4	74.2	72.0	70.4
Ice cream [4]	92.9	95.8	93.8	92.4	95.5	91.4	32.62	32.69	31.92	47.1	47.5	47.0	67.9	67.5	66.2
Slaughtering and meat packing	150.2	150.7	145.6	185.9	188.1	184.2	32.40	32.61	32.86	40.1	40.7	40.9	80.7	80.1	80.6
Sugar, beet	81.2	61.7	51.9	100.6	79.0	71.3	32.34	33.57	36.10	36.9	37.5	39.7	88.0	89.6	91.0
Sugar refining, cane	80.8	86.0	87.0	85.4	88.2	88.9	29.95	29.06	28.95	38.3	39.1	37.9	78.2	74.4	76.4
Tobacco manufactures	**66.3**	**64.5**	**63.8**	**84.1**	**78.3**	**77.5**	**23.09**	**22.10**	**22.16**	**39.4**	**38.5**	**38.5**	**58.7**	**57.5**	**57.5**
Chewing and smoking tobacco and snuff	52.3	51.5	51.4	78.1	74.8	75.8	24.21	23.50	23.86	38.3	37.0	37.2	63.3	63.4	63.2
Cigars and cigarettes	68.0	66.1	65.3	84.7	78.6	77.6	22.90	21.85	21.85	39.5	38.7	38.6	58.3	56.8	56.9
Paper and printing	**115.0**	**115.6**	**117.2**	**129.9**	**128.3**	**130.5**	**34.50**	**33.75**	**33.76**	**39.4**	**38.8**	**39.0**	**89.6**	**89.3**	**88.6**
Boxes, paper	118.1	119.1	123.1	163.3	158.5	164.2	27.50	26.41	26.47	40.2	39.1	39.6	68.6	67.8	66.8
Paper and pulp	119.5	121.5	126.0	165.1	162.3	168.6	34.50	33.09	33.14	42.3	40.9	41.5	81.6	80.9	79.7
Printing and publishing:															
Book and job	99.2	99.1	96.7	95.6	95.7	93.1	33.62	33.73	33.58	39.2	39.1	38.8	86.1	86.7	87.0
Newspapers and periodicals	110.6	110.4	112.3	112.9	111.7	114.3	41.17	40.87	41.14	35.9	35.7	36.0	113.2	112.9	112.5
Chemicals, petroleum, and coal products [3]	**159.9**	**158.4**	**157.6**	**237.4**	**233.4**	**228.8**	**39.35**	**38.80**	**38.03**	**41.2**	**41.0**	**41.0**	**94.4**	**94.1**	**93.0**
Petroleum refining	134.5	133.9	133.6	189.6	186.5	182.0	43.54	43.10	42.18	38.7	39.0	38.4	112.4	110.9	110.2
	166.0	164.4	163.4	252.2	247.8	243.3	38.05	37.54	36.75	41.9	41.6	41.7	89.3	89.4	88.1
									41.21	41.6	41.9	41.5	100.1	100.3	99.0

Chemicals, petroleum, and coal products [3]	159.9	158.4	157.6	237.4	233.4	228.8	39.35	38.80	38.03	41.2	41.0	41.0	94.4	94.1	93.0
Petroleum refining	134.5	133.9	133.6	189.6	186.5	182.0	43.54	43.10	42.18	38.7	39.0	38.4	112.4	110.9	110.2
Other than petroleum refining [3]	166.0	164.4	163.4	252.2	247.8	243.3	38.05	37.54	36.75	41.9	41.6	41.7	89.3	89.4	88.1
Chemicals [3]	194.4	196.0	196.6	309.1	313.8	308.3	41.73	42.09	41.21	41.6	41.9	41.5	100.1	100.3	99.0
Cottonseed—oil, cake, and meal	64.0	61.1	56.8	71.6	67.9	61.5	17.95	17.88	17.39	43.2	43.5	43.5	41.4	41.0	39.8
Druggists' preparations [4]	162.8	161.4	158.1	212.2	206.3	203.0	29.00	28.49	28.76	39.6	39.4	40.0	73.6	73.1	71.6
Explosives [3]	(6)	(6)	(6)	(6)	(6)	(6)	45.57	45.35	45.67	46.3	45.7	46.0	98.8	99.1	99.2
Fertilizers	97.5	93.8	102.0	121.0	118.4	121.8	22.39	22.72	21.17	38.8	38.4	38.6	60.5	59.1	54.9
Paints and varnishes	125.6	126.3	131.8	162.8	161.6	169.7	35.90	35.47	35.78	41.4	41.2	41.5	87.0	86.4	86.2
Rayon and allied products [4]	307.3	309.1	314.5	400.4	392.6	397.8	33.31	32.20	32.07	39.7	39.1	39.7	82.8	82.4	80.8
Soap	81.6	81.8	84.8	125.5	121.7	128.5	36.28	35.11	35.76	40.8	40.1	40.7	88.8	87.6	87.9
Rubber products	105.1	101.9	97.2	154.0	147.0	137.6	39.46	38.88	38.24	42.2	41.4	41.5	93.6	93.3	92.6
Rubber boots and shoes [3]	75.4	72.7	67.6	111.6	100.1	95.7	33.57	31.23	32.10	42.9	40.8	41.9	78.3	76.6	76.6
Rubber tires and inner tubes	86.3	82.9	77.9	135.4	131.0	118.7	45.79	46.04	44.42	41.6	41.7	40.4	110.0	110.7	110.3
Rubber goods, other [3]	169.9	164.2	160.5	236.6	223.3	218.6	34.00	33.23	33.33	42.6	41.8	42.5	79.8	79.4	78.8

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Coal mining:															
Anthracite [11 12]	46.7	46.8	45.5	48.2	45.9	56.0	$34.00	$32.09	$40.25	33.9	32.3	35.4	99.2	98.4	98.2
Bituminous [13]	92.3	93.0	92.7	118.6	112.7	140.3	34.13	32.18	39.91	32.1	30.5	33.5	106.1	105.3	106.0
Metalliferous mining [13]	80.7	81.5	81.8	106.5	101.6	102.0	41.22	38.90	39.12	44.6	43.3	44.0	91.4	89.2	88.7
Quarrying and nonmetallic mining	51.5	51.6	51.9	67.4	65.9	65.1	32.47	31.76	31.53	44.9	44.7	44.6	71.9	70.9	69.7
Crude-petroleum production [14]	56.7	57.1	57.5	62.4	62.4	62.9	40.14	39.90	39.94	39.0	39.4	39.0	102.2	99.5	99.0
Public utilities:															
Telephone and telegraph [15 16]	93.8	93.5	92.5	127.4	126.0	125.3	33.19	32.96	33.03	40.5	40.5	40.3	81.9	81.8	82.4
Electric light and power [15 16]	85.9	86.9	87.7	112.8	113.4	113.6	39.61	39.59	39.31	40.1	40.4	40.5	99.4	97.6	96.8
Street railways and busses [15 16 17]	75.0	74.8	74.0	93.8	91.0	89.4	40.46	39.69	39.41	48.4	47.8	48.0	83.5	81.8	80.9
Trade:															
Wholesale [15 16]	90.3	89.7	90.4	91.8	91.3	91.0	35.99	35.35	35.16	41.0	41.3	41.4	86.1	86.2	85.0
Retail [15 16]	89.4	90.3	92.8	91.4	91.8	93.4	23.66	23.57	23.38	42.1	42.0	41.7	61.4	61.2	60.7
Food [16]	112.4	114.4	114.5	118.0	118.9	117.9	26.91	26.70	26.66	42.6	42.0	41.8	61.7	61.5	61.3
General merchandising [15 16]	103.9	103.6	108.4	104.9	105.1	109.0	19.82	19.89	19.73	38.2	38.6	38.1	51.5	51.4	51.5
Apparel [16]	81.2	81.9	90.9	84.0	85.4	92.2	24.27	24.33	23.45	38.0	38.5	37.7	63.7	63.1	62.8
Furniture and housefurnishings [16]	60.2	61.8	63.5	62.4	63.4	65.3	31.71	31.46	31.69	44.5	44.4	44.1	73.6	73.5	74.7
Automotive [16]	52.8	53.4	54.3	58.4	57.9	58.6	32.95	32.10	31.98	48.0	47.5	48.0	68.8	68.0	67.4
Lumber and building materials [16]	69.8	70.8	71.2	80.9	80.8	80.1	31.90	31.55	31.06	43.3	43.1	42.9	76.5	75.9	74.4
Hotels (year-round) [11 15 19]	93.4	94.4	95.5	96.6	96.5	96.6	17.75	17.58	17.43	45.6	45.6	45.4	39.8	38.6	38.2
Laundries [11]	117.4	119.1	114.8	116.8	117.8	115.2	20.85	20.66	20.86	43.2	43.3	43.7	48.6	48.2	48.1
Dyeing and cleaning [11]	123.7	126.9	130.1	106.4	109.2	117.7	23.95	24.04	25.33	42.7	43.2	45.4	57.4	57.2	57.2
Brokerage [15 20 21]	−2.6	−5.3	−1.6	−3.8	−3.8	−3.0	40.49	41.22	40.16	(22)	(22)	(22)	(22)	(22)	(22)
Insurance [15 20]	−.4	+.5	−.1	−.8	+.9	−.1	37.77	38.07	37.97	(22)	(22)	(22)	(22)	(22)	(22)
Building construction [20]	−3.1	−4.2	−4.4	−2.2	−3.2	−1.7	43.79	43.42	42.28	37.3	37.5	37.2	117.4	115.7	113.6
Water transportation [23]	69.4	70.4	74.3	+.4	−4.8	+4.3	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)
Class I steam railroads [24]	129.6	129.0	126.7	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)

See footnotes on pp. 1096–1097.

[Footnotes for table 2]

[1] Averages by years, 1932 to 1940, inclusive, and by months, January 1932 to November 1941, inclusive, are available in Bulletin No. 697. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

[2] See tables 9, 10, and 11 in the December 1940 issue of "Employment and Pay Rolls" for comparable series back to January 1919 for all manufacturing and back to January 1923 for the durable- and nondurable-goods groups.

[3] Revisions in the following industries and groups have been made as indicated:

Iron and steel group.—April and May 1942 pay-roll indexes to 181.3 and 183.9.

Bolts, nuts, washers, and rivets.—May 1942 employment and pay-roll indexes to 173.5 and 291.9. Average weekly earnings to $40.16.

Cutlery (not including silver and plated cutlery) and edge tools.—May 1942 pay-roll index to 175.2.

Stamped and enameled ware.—January, February, March, and May 1942 employment indexes to 213.0, 209.1, 211.4, 204.0; January to May pay-roll indexes to 292.0, 296.9, 306.1, 302.3, 307.6; February weekly earnings to $33.48; January to May average weekly hours to 42.0, 43.2, 43.4, 43.5, 44.0; January, March, April, and May average hourly earnings to 76.9, 78.6, 79.3 and 81.0 cents.

Machinery, not including transportation equipment.—December 1941 to May 1942 employment indexes to 185.1, 187.0, 191.9, 196.6, 201.2, 204.4; pay-roll indexes to 273.7, 289.8, 300.8, 314.4, 324.2, and 335.5; April and May average hourly earnings to 93.2 and 94.5 cents.

Engines, turbines, water wheels, and windmills.—November 1941 to May 1942 average weekly earnings to $51.68, $52.71, $57.75, $55.59, $57.49, $56.48, $56.48; November, December 1941, March and April 1942 average hours to 47.4, 48.2, 49.9, 49.0; December 1941 to May 1942 average hourly earnings to 109.4, 115.2, 112.6, 115.3, 115.5, and 115.8 cents.

Textile machinery and parts.—May 1942 employment and pay-roll indexes to 108.8 and 158.6.

Transportation equipment group.—December 1941 to May 1942 employment indexes to 209.3, 211.1, 217.2, 226.9, 239.7 and 255.3; pay-roll indexes to 291.3, 331.5, 339.9, 354.6, 382.1 and 408.6.

Aircraft.—April and May 1942 average weekly earnings to $45.90 and $46.22; November 1941 and May 1942 average hours to 44.4 and 47.7; December 1941 to May 1942 average hourly earnings to 91.8, 96.3, 95.1, 95.6, 97.1 and 98.3 cents.

Millwork.—May 1942 pay-roll index to 70.7; average weekly earnings, hours, and hourly earnings to $28.57, 42.2 hours, and 67.5 cents.

Carpets and rugs.—January, February, April, and May 1942 employment indexes to 82.5, 80.7, 70.4, 66.9; January, March, April, and May pay-roll indexes to 82.7, 81.0, 75.5, 76.3; January to May 1942 average weekly earnings to $27.68, $29.05, $29.02, $29.61 and $31.44; average hourly earnings to 74.8, 75.9, 76.6, 76.7, and 77.9 cents; February to May 1942 average hours to 38.3, 37.9, 38.7 and 40.4.

Chemical, petroleum, and coal products group.—April and May 1942 employment indexes to 159.0 and 157.8; pay-roll indexes to 223.1 and 226.8.

Chemicals other than petroleum refining group.—April and May 1942 employment indexes to 165.6 and 164.0; pay-roll indexes to 236.9 and 241.4.

Chemicals.—May 1942 employment and pay-roll indexes to 194.2 and 303.4.

Explosives.—April and May 1942 average weekly earnings to $44.57 and $45.47; May average hourly earnings to 98.9 cents.

Rubber boots and shoes.—May 1942 employment and pay-roll indexes to 70.2 and 98.7; average weekly and hourly earnings to $31.91 and 76.2 cents.

Rubber goods, other.—April 1942 employment index to 159.5; April and May pay-roll indexes to 206.3 and 210.5; April average hourly earnings to 76.6 cents.

[4] Because of changes in the composition of the reporting sample, hours and earnings are not comparable with those previously published as indicated:

Bolts, nuts, washers, and rivets.—Average hours and hourly earnings (comparable May figures 45.1 hours and 89.1 cents).

Cutlery.—Average weekly earnings, hours, and hourly earnings (comparable May figures $34.98, 44.7 hours, and 79.0 cents).

Hardware.—Average hours and hourly earnings (comparable May figures 45.8 hours and 81.2 cents).

Textile machinery and parts.—Average weekly earnings, hours, and hourly earnings (comparable May figures $39.80, 49.1 hours, 81.2 cents).

Cars, electric- and steam-railroad.—Average weekly and hourly earnings (no comparable May figures).

Smelting and refining—copper, lead, and zinc.—Average hourly earnings (comparable May figure 89.1 cents).

Cement.—Average hourly earnings (no comparable May figures).

Confectionery.—Average hourly earnings (no comparable May figures).

Flour.—Average hourly earnings (no comparable May figures).

Ice cream.—Average weekly earnings, hours, and hourly earnings (no comparable May figures).

Druggists' preparations.—Average hourly earnings (no comparable May figures).

Rayon and allied products.—Average hourly earnings (comparable May figure 80.3 cents).

[5] See table 7 in the April 1941 issue of "Employment and Pay Rolls" for revised figures from January 1940 to March 1941.

[6] Included in total and group indexes, but not available for publication separately.

[7] Adjusted on basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics for August 1940. Not comparable with previously published indexes from January 1939 to August 1940, inclusive. Comparable figures for this period given in table 9 of the September 1940 issue of "Employment and Pay Rolls."

[8] The indexes for "Automobiles" have been adjusted to 1933 Census figures, but not to later Census figures because of problems involving integrated industries.

[9] See footnote 7 in table 5 of October 1941 "Employment and Pay Rolls" for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in "Locomotives," August 1940 to July 1941, inclusive.

[10] See table 8 in March 1941 "Employment and Pay Rolls" pamphlet for revised figures from January 1935 to December 1940, and footnote 11, table 2, in October 1942 "Monthly Labor Review" for revised hours and earnings from January 1941 to April 1942.

[11] Indexes adjusted to 1935 Census. Comparable series back to January 1929 presented in January 1938 issue of "Employment and Pay Rolls" pamphlet.

[12] See table 7 of October 1940 "Employment and Pay Rolls" for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclu-

[13] Indexes adjusted to 1933 Census. Comparable series in November 1934 and subsequent issues of "Employment and Pay Rolls."

[14] Cash payments only; additional value of board, room, and tips cannot be computed.

and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclusive.

[13] See table 7 of February 1941 pamphlet for revised figures for metalliferous mining from January 1938 to January 1941, inclusive.

[14] Does not include well-drilling or rig-building.

[15] Average weekly earnings, hourly earnings, and hours are not comparable with figures published in pamphlets prior to January 1939 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

[16] Retail-trade indexes adjusted to 1935 Census and public-utility indexes to 1937 Census. Not comparable to indexes published in pamphlets prior to January 1940 or in "Monthly Labor Review" prior to April 1940, with but one exception, retail furniture, which has been revised since publication of July 1940 pamphlet, back to January 1936. Comparable series for earlier months available upon request.

[17] Covers street-railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

[18] Indexes adjusted to 1933 Census. Comparable series in November 1934 and subsequent issues of "Employment and Pay Rolls."

[19] Cash payments only; additional value of board, room, and tips cannot be computed.

[20] Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

[21] See note 18 in table 9 in the July 1941 issue of "Employment and Pay Rolls" for revised average weekly earnings in the brokerage industry from January 1939 to January 1941.

[22] Not available.

[23] Based on estimates prepared by the United States Maritime Commission covering employment on steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only. Pay-roll indexes not available. Percentage changes from preceding month substituted.

[24] Preliminary; source—Interstate Commerce Commission.

TABLE 3.—*Indexes of Employment and Pay Rolls in 55 Additional Manufacturing Industries*

[12-month average 1939=100]

Industry	Employment			Pay rolls		
	August 1942	July 1942	June 1942	August 1942	July 1942	June 1942
Iron and steel:						
Metal doors and shutters	133.6	139.2	141.6	203.0	210.6	206.8
Firearms	(1)	(1)	(1)	(1)	(1)	(1)
Screw-machine products	273.2	270.3	268.0	462.2	457.4	448.2
Wire drawing	147.1	142.4	141.8	202.7	197.5	196.4
Wrought pipe not made in rolling mills	211.4	194.2	185.4	361.8	320.6	298.0
Steel barrels, kegs, and drums	113.5	124.9	123.2	165.3	169.7	185.9
Machinery:						
Machine-tool accessories	(1)	(1)	(1)	(1)	(1)	(1)
Pumps	281.3	274.7	273.9	540.8	521.5	526.4
Refrigerators and refrigerating apparatus	104.6	98.7	94.2	158.9	144.3	140.5
Sewing machines	127.9	125.6	128.6	229.4	223.0	222.8
Washing machines, wringers, and driers	120.4	109.8	96.9	189.8	185.6	152.7
Transportation equipment:						
Motorcycles, bicycles, and parts	140.6	140.5	139.1	232.3	224.4	219.2
Nonferrous metals:						
Sheet-metal work	151.3	149.3	147.7	227.9	213.8	219.2
Smelting and refining of scrap metal	170.8	169.7	169.4	255.1	248.1	243.5
Lumber:						
Caskets and morticians goods	90.4	92.0	96.8	111.9	115.6	126.9
Wood preserving	117.3	117.4	117.3	186.3	181.3	176.8
Wood turned and shaped	110.1	111.4	114.0	154.2	153.4	159.4
Wooden boxes, other than cigar	126.7	127.4	127.1	190.8	187.8	189.0
Mattresses and bedsprings	88.5	98.8	106.4	115.4	124.5	133.8
Stone, clay, and glass products:						
Abrasive wheels	217.7	212.4	207.7	327.1	313.9	306.1
Asbestos products	131.1	131.1	134.4	207.2	207.3	208.0
Lime	113.5	113.0	117.7	162.6	157.3	165.4
Gypsum	96.0	100.3	108.1	134.1	138.8	142.9
Glass products made from purchased glass	114.7	117.0	116.6	144.3	142.7	144.1
Wallboard and plaster, except gypsum	135.0	136.1	129.7	189.4	182.1	174.6
Textiles:						
Textile bags	128.4	124.0	121.6	168.6	154.9	150.4
Cordage and twine	135.3	137.0	139.7	197.2	202.9	211.7
Curtains, draperies, and bedspreads	99.1	93.8	94.6	139.3	127.1	129.0
House furnishings, other	143.4	141.3	134.3	196.7	183.8	174.7
Jute goods, except felt	109.2	108.6	109.9	165.1	160.7	162.3
Handkerchiefs	91.6	93.6	93.1	124.5	126.7	129.9
Leather:						
Boot and shoe cut stock and findings	97.1	97.9	98.4	130.8	127.8	129.0
Leather gloves and mittens	147.5	148.9	150.1	194.3	191.3	198.3
Trunks and suitcases	187.2	180.2	178.9	234.3	210.2	204.2
Food:						
Cereal preparations	122.8	117.3	111.5	171.6	155.6	146.9
Condensed and evaporated milk	145.5	150.5	154.0	193.9	199.1	201.1
Feeds, prepared	123.0	122.1	120.5	166.0	168.4	163.0
Paper and printing:						
Paper bags	110.3	110.9	118.6	145.3	141.2	152.1
Envelopes	109.2	110.5	114.0	128.9	128.3	131.3
Paper goods, not elsewhere classified	117.1	117.8	120.9	141.7	139.5	142.6
Bookbinding	107.2	109.5	108.2	138.6	141.6	142.2
Lithographing	86.1	86.7	89.8	94.2	94.5	97.9
Chemical, petroleum, and coal products:						
Ammunition	(1)	(1)	(1)	(1)	(1)	(1)
Compressed and liquefied gases	162.0	164.5	161.6	233.3	232.7	236.6
Perfumes and cosmetics	103.5	102.5	100.4	120.8	119.6	117.9
Coke-oven products	125.0	124.9	124.3	165.6	162.6	156.5
Paving materials	73.5	85.9	83.5	111.8	121.4	119.6
Roofing materials	132.1	131.5	127.1	188.8	185.6	182.2
Miscellaneous:						
Chemical fire extinguishers	(1)	(1)	(1)	(1)	(1)	(1)
Buttons	116.6	114.6	118.4	173.9	169.6	174.7
Instruments—professional, scientific, and commercial	(1)	(1)	(1)	(1)	(1)	(1)
Optical goods	(1)	(1)	(1)	(1)	(1)	(1)
Photographic apparatus	141.5	137.8	135.2	195.2	189.5	192.1
Pianos, organs, and parts	82.6	91.9	90.5	123.2	131.1	120.9
Toys, games, and playground equipment	87.6	95.3	116.7	120.6	126.6	158.7

[1] Not available for publication separately.

TABLE 4.—*Indexes of Employment and Pay Rolls in Selected Manufacturing [1] and Nonmanufacturing [2] Industries, August 1941 to August 1942*

Industry	1941						1942							
	Av.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Employment														
Manufacturing														
All industries	127.7	133.1	135.2	135.4	134.8	134.2	132.5	133.8	135.1	136.6	137.8	139.4	142.4	145.9
Durable goods [3]	134.0	138.7	142.1	144.0	144.6	144.2	143.3	145.1	147.5	150.9	154.0	157.5	161.2	165.4
Nondurable goods [4]	121.6	127.7	128.7	127.3	125.4	124.8	122.1	123.0	123.2	123.0	122.4	122.2	124.6	127.2
Nonmanufacturing														
Anthracite mining [5]	49.7	50.0	50.0	50.3	50.2	49.1	49.0	48.8	48.4	47.8	48.2	45.5	46.8	46.7
Bituminous-coal mining [5]	86.2	92.6	94.2	95.3	95.1	95.5	95.1	94.5	93.7	93.5	92.9	92.7	93.0	92.3
Metalliferous mining [6]	77.6	79.9	79.4	79.7	79.5	80.2	80.7	81.0	81.9	81.9	82.2	81.8	81.5	80.7
Quarrying and nonmetallic mining	49.8	53.9	54.2	54.1	52.6	50.9	46.8	46.7	47.7	50.3	51.7	51.9	51.6	51.5
Crude-petroleum production	61.0	62.2	61.8	61.6	60.9	61.1	61.3	60.6	59.7	58.8	58.1	57.5	57.1	56.7
Telephone and telegraph [7]	86.3	89.6	90.3	90.6	90.1	90.0	90.4	90.3	90.5	91.2	91.7	92.5	93.5	93.8
Electric light and power [7]	92.7	95.2	94.9	94.1	93.4	93.1	92.0	90.5	89.6	88.9	88.0	87.7	86.9	85.9
Street railways and busses [7 8]	69.3	69.7	70.3	70.3	70.2	70.6	70.4	70.7	71.2	72.1	72.9	74.0	74.8	75.0
Wholesale trade	94.0	95.8	95.6	96.3	96.3	96.3	94.9	94.3	93.9	92.7	91.2	90.4	89.7	90.3
Retail trade [7]	98.0	96.9	100.0	101.0	103.0	113.0	95.4	94.0	94.4	94.3	94.0	92.8	90.3	89.4
Year-round hotels [5]	95.0	94.5	95.7	96.2	96.1	95.3	94.2	94.1	93.5	95.2	96.1	95.5	94.4	93.4
Laundries [5]	108.5	114.6	113.0	111.2	108.9	108.4	108.8	107.6	107.9	110.3	113.7	114.8	119.1	117.4
Dyeing and cleaning [5]	115.1	118.9	121.5	121.2	117.2	113.3	109.8	109.5	113.8	121.3	127.6	130.1	126.9	123.7
Pay rolls														
Manufacturing														
All industries	148.8	158.1	162.6	167.0	165.4	169.9	173.5	178.3	182.9	188.0	193.5	198.2	204.6	214.7
Durable goods [3]	167.8	177.6	183.3	191.4	190.3	195.4	204.3	210.6	217.3	226.6	235.6	244.2	252.7	266.7
Nondurable goods [4]	127.6	136.3	139.5	139.6	137.4	141.3	139.0	142.1	144.3	144.8	146.4	146.7	150.8	156.6
Nonmanufacturing														
Anthracite mining [5]	41.4	51.1	49.6	49.2	41.8	35.9	39.4	49.6	50.9	44.7	51.5	56.0	45.9	48.2
Bituminous-coal mining [5]	99.6	117.3	115.5	122.6	116.4	119.9	117.1	118.2	116.7	118.3	122.1	140.3	112.7	118.6
Metalliferous mining [6]	81.9	85.4	85.9	88.3	89.8	93.7	94.3	98.4	99.1	99.1	100.8	102.0	101.6	106.5
Quarrying and nonmetallic mining	51.8	59.3	60.5	61.5	57.5	55.8	48.9	52.0	54.4	58.1	63.0	65.1	65.9	67.4
Crude-petroleum production	60.5	61.5	64.4	64.4	64.2	64.6	64.8	64.8	62.6	63.2	62.0	62.9	62.4	62.4
Telephone and telegraph [7]	112.7	116.4	117.3	117.0	118.3	122.9	120.9	120.9	121.8	122.2	125.0	125.3	126.0	127.4
Electric light and power [7]	111.2	115.1	115.0	115.7	115.2	115.2	114.6	113.7	113.5	113.5	113.6	113.6	113.4	112.8
Street railways and busses [7 8]	75.4	78.6	78.1	78.4	78.5	80.0	80.5	83.7	84.7	84.4	86.8	89.4	91.0	93.8
Wholesale trade	87.1	89.8	90.9	92.0	91.6	92.8	91.8	93.7	93.9	92.2	91.7	91.0	91.3	91.8
Retail trade [7]	93.4	94.0	95.8	97.3	98.5	107.8	94.6	93.9	93.7	93.6	94.0	93.4	91.8	91.4
Year-round hotels [5]	88.5	88.2	90.0	91.9	93.2	93.3	91.5	92.6	91.6	93.5	95.4	96.6	96.5	96.6
Laundries [5]	99.3	104.7	105.2	103.4	101.9	102.6	103.8	102.5	104.3	108.6	113.8	115.2	117.8	116.8
Dyeing and cleaning [5]	90.4	92.1	99.5	98.5	93.0	88.6	86.5	85.6	92.7	105.7	113.1	117.7	109.2	106.4

[1] 3-year average 1923–25=100—adjusted to preliminary 1939 Census of Manufactures. See tables 9, 10, and 11 of December 1940 "Employment and Pay Rolls" for comparable figures back to January 1919 for "all manufacturing" and January 1923 for "durable goods" and "nondurable goods."

[2] 12-month average for 1929=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production are in November 1934 and subsequent issues of "Employment and Pay Rolls" or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5, 6, and 7.

[3] Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

[4] Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

[5] Indexes have been adjusted to the 1935 Census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of the pamphlet. See also table 7 of October 1940 pamphlet for revised figures for anthracite mining, February to September 1940.

[6] See table 7 of February 1941 "Employment and Pay Rolls" pamphlet for revised indexes January 1938 to January 1941.

[7] Retail-trade indexes adjusted to 1935 Census and public-utility indexes to 1937 Census. Not comparable with indexes published in "Employment and Pay Rolls" pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940. Comparable series, January 1929 to December 1939, available in mimeographed form.

[8] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

EMPLOYMENT AND UNEMPLOYMENT IN SEPTEMBER 1942

UNEMPLOYMENT declined by 500,000 between August and September 1942 to a new low of 1,700,000 persons, according to returns from the Bureau of the Census sample Monthly Report on the Labor Force. At the same time, however, employment dropped by 1,600,000 and the total number of persons in the civilian labor force declined by 2,100,000. These developments were primarily seasonal in nature, reflecting the return to school of students who were working during the summer months. Withdrawal of workers from industry to enter the armed forces also contributed to the declines in labor force and employment totals.

TABLE 1.—*Estimated Civilian Labor Force, by Employment Status and by Sex, April 1940–September 1942*

Month	Estimated number (millions of persons)								
	Labor force			Employed			Unemployed [1]		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1940									
April	53.9	40.6	13.3	45.1	34.1	11.0	8.8	6.5	2.3
May	54.7	41.3	13.4	46.3	35.3	11.0	8.4	6.0	2.4
June	56.2	42.3	13.9	47.6	36.4	11.2	8.6	5.9	2.7
July	56.9	43.1	13.8	47.6	36.8	10.8	9.3	6.3	3.0
August	56.6	42.9	13.7	47.7	36.9	10.8	8.9	6.0	2.9
September	54.9	41.5	13.4	47.9	36.7	11.2	7.0	4.8	2.2
October	54.4	41.3	13.1	47.0	36.2	10.8	7.4	5.1	2.3
November	53.7	41.1	12.6	46.3	35.8	10.5	7.4	5.3	2.1
December	53.4	40.9	12.5	46.3	35.7	10.6	7.1	5.2	1.9
1941									
January	53.0	40.7	12.3	45.3	35.1	10.2	7.7	5.6	2.1
February	52.9	40.6	12.3	45.7	35.4	10.3	7.2	5.2	2.0
March	52.7	40.4	12.3	45.8	35.4	10.4	6.9	5.0	1.9
April	53.5	40.9	12.6	46.8	36.2	10.6	6.7	4.7	2.0
May	54.2	40.9	13.3	48.5	37.0	11.5	5.7	3.9	1.8
June	56.2	42.3	13.9	50.2	38.3	11.9	6.0	4.0	2.0
July	56.6	42.6	14.0	50.9	38.9	12.0	5.7	3.7	2.0
August	56.4	42.4	14.0	51.0	38.8	12.2	5.4	3.6	1.8
September	54.8	41.0	13.8	50.3	38.0	12.3	4.5	3.0	1.5
October	54.1	40.4	13.7	50.2	37.9	12.3	3.9	2.5	1.4
November	54.1	40.3	13.8	50.2	37.7	12.5	3.9	2.6	1.3
December	54.0	40.2	13.8	50.2	37.6	12.6	3.8	2.6	1.2
1942									
January	53.2	40.0	13.2	48.9	37.0	11.9	4.3	3.0	1.3
February	53.4	40.0	13.4	49.4	37.2	12.2	4.0	2.8	1.2
March	54.5	40.0	14.5	50.9	37.6	13.3	3.6	2.4	1.2
April	53.7	39.8	13.9	50.7	37.8	12.9	3.0	2.0	1.0
May	54.2	40.0	14.2	51.6	38.4	13.2	2.6	1.6	1.0
June	56.1	41.1	15.0	53.3	39.4	13.9	2.8	1.7	1.1
July	56.8	41.6	15.2	54.0	39.9	14.1	2.8	1.7	1.1
August	56.2	41.1	15.1	54.0	39.7	14.3	2.2	1.4	.8
September	54.1	39.2	14.9	52.4	38.2	14.2	1.7	1.0	.7

[1] Includes persons on public emergency projects.

Source: U. S. Department of Commerce, Bureau of the Census.

The shift of students from summer jobs back to the classroom was reflected in the sharp drop in employment among persons 14–24 years of age. Among persons in the older age groups, employment actually increased by 500,000 between August and September (table 2).

The September figures indicate a drop of 1 million in the number of persons working on farms. This decline in agricultural employment, which was in excess of seasonal expectations, accounted for most of

the decrease in total employment between August and September. However, the number of persons engaged in farm employment in September 1942 was still 100,000 higher than the number in September of the previous year. Similarly, nonagricultural employment, which experienced a decline of 600,000 between August and September, was up 2,000,000 over the level of a year ago.

Most of the declines in both employment and the size of the civilian labor force occurred among the men. Between August and September employment declined by 100,000 among women, but fell by 1,500,000 among the males. During the same interval, there was a decline of 200,000 women in the labor force, while the number of men in the civilian labor force decreased by 1,900,000.

TABLE 2.—*Estimated Civilian Labor Force, Employment, and Unemployment, by Age Groups, August and September of 1940, 1941, and 1942* [1]

Labor-market status and age	1942		1941		1940	
	September	August	September	August	September	August
	Estimated number (millions of persons)					
Labor force	54.1	56.2	54.8	56.4	54.9	56.6
14 to 24 years	12.0	14.4	12.6	14.6	12.8	14.8
25 to 54 years	33.6	33.3	33.8	33.5	34.2	34.0
55 years and over	8.5	8.5	8.4	8.3	7.9	7.8
Employed	52.4	54.0	50.3	51.0	47.9	47.7
14 to 24 years	11.4	13.5	11.0	12.3	10.2	10.9
25 to 54 years	32.7	32.3	31.7	31.3	30.8	30.1
55 years and over	8.3	8.2	7.6	7.4	6.9	6.7
Unemployed	1.7	2.2	4.5	5.4	7.0	8.9
14 to 24 years	.6	.9	1.6	2.3	2.6	3.9
25 to 54 years	.9	1.0	2.1	2.2	3.4	3.9
55 years and over	.2	.3	.8	.9	1.0	1.1
	Unemployment rate [2] (percent [3])					
All age groups	3.2	4.0	8.3	9.5	12.8	15.7
14 to 24 years	4.4	6.3	12.9	15.5	21.0	25.9
25 to 54 years	2.6	2.8	6.2	6.8	9.9	11.5
55 years and over	3.5	4.6	9.8	10.2	12.3	14.4
	Percentage distribution of unemployed [3]					
All age groups	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years	30.8	40.9	35.9	42.0	38.1	43.3
25 to 54 years	51.8	41.6	46.1	42.4	48.1	44.0
55 years and over	17.4	17.5	18.0	15.6	13.8	12.7

[1] All data exclude persons in institutions. Persons on public emergency work projects are included with the unemployed.
[2] Unemployed as a percent of labor force in each age group.
[3] Percentages computed from unrounded numbers.

Source: U. S. Department of Commerce, Bureau of the Census.

Recent Publications of Labor Interest

NOVEMBER 1942

Conciliation and Arbitration

Labor arbitration—principles and procedures. By John A. Lapp. New York, National Foremen's Institute, Inc., 1942. 234 pp. $3.50.
The material was developed from practical experience and is presented as a guide for persons engaged in the peaceful settlement of industrial disputes.

Labor arbitration in wartime: Report of Industrial Arbitration Tribunal of American Arbitration Association, 1941. New York, American Arbitration Association, 1942. 23 pp.

Mediation and arbitration of labor disputes, by State agency, in Indiana. By Harold Bruss Baker. Indianapolis, Butler University, 1942. 58 pp.
Traces developments from 1897 to 1942 under the five State mediation laws, and concludes that success has depended upon the assumption of responsibility by some person or persons for arbitration and mediation as a primary, continuous task.

Industrial Conciliation and Arbitration Act of Province of British Columbia [Canada]. Victoria, Department of Labor, 1941. 47 pp.
Outline of activities in 1940 of industrial conciliation and arbitration branch of the provincial Department of Labor, under provisions of the statute, together with text of the statute and copies of regulations under it.

La conciliación y el arbitraje en Cuba. By Carlos M. Raggi. (In Revista del Trabajo, Ministerio del Trabajo y de la Comisión Nacional de Arbitraje, Habana, January–April 1942, pp. 11–20.)
Account of the development and present status of legal provisions for conciliation and arbitration of industrial disputes in Cuba, and a discussion of the method of procedure and the character of the conflicts, with conclusions as to the value of the legislation.

Cost of Living

Cost of living in 1941. Washington, U. S. Bureau of Labor Statistics, 1942. 41 pp., charts. (Bull. No. 710.) 10 cents, Superintendent of Documents, Washington.

What is the cost-of-living index? Washington, U. S. Bureau of Labor Statistics, 1942. 10 pp. (Serial No. R. 1476, reprint from August 1942 Monthly Labor Review.)

Food and Nutrition

Community feeding in wartime. By Barbara Drake. London, Victor Gollancz, Ltd., 1942. 29 pp. 6d. (Fabian Society research series, No. 64.)
Describes different types of community feeding centers in Great Britain as developed during the war. Included are school canteens, works canteens, emergency feeding centers, and "British restaurants."

Food—a weapon for victory. By Bertram Fowler. Boston, Little, Brown & Co., 1942. 185 pp. $1.50.
Presents a plan for feeding Europe after the war.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entry. The amounts do not include postage, and also they are subject to change.

Food consumption and dietary surveys in the Americas—results, methods. By Robert Morse Woodbury. Montreal, International Labor Office, 1942. 64 pp. 35 cents.

Report presented by the International Labor Office to the Pan American Sanitary Conference in Rio de Janeiro in September 1942, dealing with food consumption and nutrition and methods of dietary and food-consumption surveys. A table of food-expenditure scales as used in certain family-living studies is given in an appendix.

Nutrition and victory: Food problems in war and peace. By Erwin Pulay, M. D. London, Research Books, Ltd., 1941. 118 pp. 6s. ($1.50, Saunders, Toronto.)

The book treats all aspects of the nutrition question, emphasizing the importance of protective foods and the utilization of vitamins. The relation of a proper food supply to increase in the resistance power of civilians as well as of fighting forces in the present war is stressed.

Nutrition in industry. Ottawa, Department of Pensions and National Health, 1942. 19 pp.

Brief account of the facilities for providing food in Canadian war industries and suggestions as to facilities and kinds of food to be provided.

The art and science of nutrition: A textbook on the theory and application of nutrition. By Estelle E. Hawley and Grace Carden. St. Louis, C. V. Mosby Co., 1941. 619 pp., diagrams, illus. $3.50.

The first section of this volume deals with normal nutrition including the effect of the digestive processes on the different organs of the body, and discusses the different food elements; the second section deals with food requirements under special conditions—youth, old age, etc. Another section treats of diet therapy for various diseases, and there is a comprehensive discussion of the choice, preparation, and serving of foods.

Housing and Town Planning

Housing for war workers. By Kathryn R. Murphy. Washington, U. S. Bureau of Labor Statistics, 1942. 21 pp. (Serial No. R. 1464, reprint from June 1942 Monthly Labor Review.)

Housing before the war and after. By M. J. Elsas. London, P. S. King & Staples, Ltd., 1942. 69 pp., bibliography. 5s.

Reviews the pre-war housing situation in Great Britain and outlines a plan for reorganization after the war.

New towns after the war. By F. J. Osborn. London, M. J. Dent & Sons, Ltd., 1942. 71 pp., illus. 4s. 6d.

Concise restatement of the argument for building new industrial towns surrounded by country belts as part of the reconstruction program.

The relation of tax delinquency in slum areas to the housing problem. New York, Citizens' Housing Council of New York, Inc., 1942. 36 pp., chart. 50 cents.

A study of the financial aspects of blight in a lower East Side area of New York City. Recommendations are based on the results of a research investigation.

The role of the housebuilding industry. By Miles L. Colean. Washington, U. S. National Resources Planning Board, 1942. 29 pp.

Makes a case for a prompt and large-scale building program at the close of the war to satisfy the accumulated demand for housing and as an economic measure.

State housing agencies. By Dorothy Schaffter. New York, Columbia University Press, 1942. 808 pp. $7.50.

Believing that there should be full State participation in the public housing program, the author has given the full history of State housing agencies and offers recommendations for attaining the objective of participation.

Industrial Accidents and Workmen's Compensation

Annual report on industrial accidents in Illinois for 1941. Chicago, Illinois Department of Labor, 1942. Various paging, charts; mimeographed.

Summary of industrial injuries reported in 1941 as compensable under Workmen's Compensation and Occupational Diseases Acts, and of compensation cases closed in 1941, in Illinois.

How factory accidents happen. London, Ministry of Labor and National Service, 1941. 33 pp., illus. (Vol. XXV.) 6d.
Describes the manner in which a number of accidents happened in English factories involving power and transmission machinery, process machinery, lifting machinery, electrical plant, explosions and fires, gassing and poisoning, and other hazards.

Safety for the worker. By Agnes Martocci. Washington, U. S. Office of Education, Vocational Division, 1942. 12 pp. (Defense training leaflet No.1.) 5 cents, Superintendent of Documents, Washington.

Suggested standards for industrial safeguards. Washington, U. S. Department of Labor, Division of Labor Standards, 1942. Various paging, loose leaf, illus. (Special bull. No. 7.) 65 cents, Superintendent of Documents, Washington.

Hazards to women employed in war plants on abrasive-wheel jobs. Washington, U. S. Women's Bureau, 1942. 6 pp. (Special bull. No. 7.) 5 cents, Superintendent of Documents, Washington.

Workmen's compensation in North Carolina, 1929–1940. By J. Maynard Keech. Durham, N. C., Duke University Press, 1942. 198 pp., bibliography. $3.
Analysis of the North Carolina Workmen's Compensation Act and its administration.

Industrial Hygiene

Industrial fatigue. By Meyer Brown, M. D. Chicago, Zurich General Accident and Liability Insurance Co., Ltd., 1942. 18 pp., charts.
The author defines fatigue and methods of detecting it and summarizes findings of various investigators regarding causes and prevention of fatigue.

Proceedings of sixth annual meeting of Industrial Hygiene Foundation of America, Inc., Mellon Institute, Pittsburgh, Pa., November 12–13, 1941. Pittsburgh, Industrial Hygiene Foundation of America, [1942?]. 171 pp.
Fatigue, sickness absenteeism in industry, employment of the handicapped, tuberculosis in industry, and various protective measures for industrial workers were the subjects of some of the papers presented at the conference.

References on industrial hygiene in relation to national defense and war. Compiled by National Health Library, New York City. (In Industrial Medicine, Chicago, September 1942, p. 446; 50 cents.)
Supplements the lists published in Industrial Medicine for April (p. 184) and May (p. 234), 1942.

Prevention and control of hazards in radium dial painting industry. By L. F. Curtiss. (In Journal of Industrial Hygiene and Toxicology, Baltimore, Md., June 1942, pp. 131–141; diagrams, illus.; 75 cents.)
Discusses the hazards of radium dial painting and describes an instrument for measuring the radiation to which workers are exposed.

The toxicity and potential dangers of toluene, with special reference to its maximal permissible concentration. By W. F. von Oettingen and others. Washington, U. S. Public Health Service, 1942. 50 pp., bibliography, charts. (Public health bull. No. 279.) 10 cents, Superintendent of Documents, Washington.

Industrial Relations

Collective bargaining in the chemical industry, May 1942. Washington, U. S. Bureau of Labor Statistics, 1942. 22 pp. (Bull. No. 716, reprinted without change from July 1942 Monthly Labor Review.) 5 cents, Superintendent of Documents, Washington.

Collective bargaining in paper and allied products industry. By Arnold W. Fruitkin. Washington, U. S. Bureau of Labor Statistics, 1942. 16 pp. (Bull. No. 709, reprinted without change from April 1942 Monthly Labor Review.) 5 cents, Superintendent of Documents, Washington.

Military service and war-job clauses in union agreements. Washington, U. S. Bureau of Labor Statistics, 1942. 22 pp.; mimeographed. (Industrial relations problems arising under war production, Memorandum No. 4.)

Index to reference material on industrial relations. Ann Arbor, Mich., University of Michigan, Bureau of Industrial Relations, 1942. 32 pp. (Bull. No. 5.)

Strikes in 1941 and strikes affecting defense production. Washington, U. S. Bureau of Labor Statistics, 1942. 48 pp., charts. (Bull. No. 711, reprinted from May 1942 Monthly Labor Review, with additional data.) 10 cents, Superintendent of Documents, Washington.

Labor and Social Legislation

State labor relations acts. By Mason C. Doan. (In Quarterly Journal of Economics, Cambridge, Mass., August 1942, pp. 507–559; $1.25.)

The article describes the provisions of the State labor relations acts and examines and analyzes the experiences under them.

Small loan laws of the United States. Newton, Mass., Pollak Foundation for Economic Research, 1941. 24 pp., map, bibliography. 4th ed. (Pollak pamphlet No. 37.) 10 cents.

Gives in tabular form the rates and some of the provisions of the various State small-loan laws, and analyzes the small-loan situation of certain States.

Evolución del derecho social en América. By Moisés Poblete Troncoso. Santiago, Chile, Editorial Nascimento, 1942. 480 pp., bibliography.

Collection of studies dealing with the evolution of labor and social legislation in the Latin-American republics down to the end of 1940. Topics treated include wages, hours, labor agreements, paid vacations, work of women and minors, and other labor matters.

Social legislation in Chile. By Francisco Walker Linares; translated into English by H. Loss, Carlton College, Northfield, Minn. (In Education, Boston, December 1941, pp. 218–222.)

Summary of social and labor legislation in Chile, including the labor code. The article contains figures showing the number of labor organizations in Chile and their membership on January 1, 1941.

La reglamentación del trabajo en el nuevo Estado Español. By José Pérez Serrano. (In Revista de Trabajo, Ministerio de Trabajo, Madrid, October 1941, pp. 392–407.)

This account of labor regulation in the new Spanish State analyzes legislation dealing with collective labor agreements, piece-work wages, vacations, vocational training, etc., the latest regulation considered being a Presidential order of June 14, 1941.

Labor Organizations and Congresses

American labor unions and the war. By Alfred Braunthal. (In Social Research, New York, September 1942, pp. 293–314; 75 cents.)

Report of forty-first annual conference of Labor Party [Great Britain], Westminster, May 25–28, 1942. London, Labor Party, 1942. 183 pp. 1s. 3d.

Report of proceedings of 73d annual [British] Trades Union Congress, held at Edinburgh, September 1–4, 1941. London, Cooperative Printing Society, Ltd., [1942?]. 432 pp.

Report of nineteenth session of All-India Trade Union Congress, Cawnpore, 1942. Bombay (N. M. Toshi, General Secretary), 1942. 80 pp. 1 rupee.

Proceedings of the Congress with resolutions adopted and lists of affiliated unions and members. The text of the Congress' constitution is appended.

Personnel and Industrial Management

The analysis of industrial morale. By Eliot D. Chapple. (In Journal of Industrial Hygiene and Toxicology, Baltimore, Md., September 1942, pp. 163–172; 75 cents.)

Describes factors of interorganization relationships and discusses the problem of organization engineering from the standpoint of both physiological and technical considerations.

Employees' handbooks. New York, National Industrial Conference Board, Inc., 1942. 16 pp., illus. (Studies in personnel policy, No. 45.)

Discusses the changes which have taken place in employees' handbooks by which instead of a list of hard and fast rules these publications are used to estab-

lish a sane and understanding relationship between management and the new employee. Examples are given of the general contents and the form of presentation used by different companies.

Foremanship fundamentals. By A. L. Kress. New York, McGraw-Hill Book Co., Inc., 1942. xix, 276 pp. $2.50.

Basic fundamentals of the foreman's job are covered, including methods of selecting and training employees, safety and accident prevention, wage-payment policies, handling of grievances, and collective bargaining. The second section of the book deals with the foreman and his production problems.

Industrial management. By Arthur G. Anderson, Merten J. Mandeville, John M. Anderson. New York, Ronald Press Co., 1942. 612 pp., illus. $4.50.

Revision of "Industrial Engineering and Factory Management" (1928) with special emphasis upon relations between industry and society as a whole. Nine chapters are devoted to relations with employees. The book is intended to be a textbook for students of organization and management and is designed to precede specialized training in any management field.

Manning and managing our arsenal: Proceedings of First Southern California Management Conference, held at California Institute of Technology, May 2, 1942. Stanford University, Calif., Stanford University Press, 1942. 49 pp. $1.

Some of the subjects of papers presented at the conference were current production problems, industrial relations and the foreman, methods study for the worker, the industrial supervisor's responsibility in accident prevention, and women in war industries.

Principles of employment psychology. By Harold Ernest Burtt. New York, Harper & Bros., 1942. 568 pp. Rev. ed. $4.50.

Survey of present-day psychological technique as it bears on problems of employment. Various types of mental, special-capacity, intelligence, vocational-aptitude, and trade tests are described and there is a chapter on job analysis. Reading lists are given on the various subjects treated.

The theory and practice of job rating. By M. F. Stigers and E. G. Reed. New York, McGraw-Hill Book Co., Inc., 1942. 154 pp. $1.75.

Describes a practical method of job rating. The subjects discussed include the place of wages in an economics of abundance, the theory of wage calculation, job elements and their definitions, and procedures to be followed in the job analysis and rating plan.

Post-War Reconstruction

General bibliography on international organization and post-war reconstruction. By Hans Aufricht. New York, Commission to Study the Organization of Peace, 1942. 28 pp. (Bulletin, Vol. II, Nos. 5–6.) 10 cents.

Post-war poverty and unemployment can be prevented. By T. W. Wyatt and D. Caradog Jones. Birkenhead, England, John Woolman & Sons, 1940. 22 pp. 6d.

If the increased productive capacity created by war is utilized the authors believe the post-war period can be made prosperous.

Socialism, national or international? By Franz Borkenau. London, George Routledge & Sons, Ltd., 1942. 172 pp.

A discussion of the role of labor in the post-war world. The author states that the victory of the United Nations will call for a reorganization in which Anglo-American joint leadership will have to assume large responsibilities and that labor "has a chance of putting itself at the head of a move in that direction."

Strategy for democracy. By J. Donald Kingsley and David W. Petegorsky. New York, Longmans, Green & Co., 1942. 342 pp. $3.

The authors outline the measures for progressive post-war reconstruction which they believe must be adopted at once to assure the defeat of fascism and to establish the basis for a lasting and democratic peace.

The old world and the new society. London, Labor Party, [1942]. 31 pp. 3d.

A report on the problems of war and peace reconstruction. Enumerates the changes the British Labor Party desires and cites reasons.

Rebuilding Britain series: No. 1, *Overture to planning,* by F. J. Osborn; No. 2, *Britain's town-country pattern (summary of report of Royal Commission on Distribution of Industrial Population);* No. 3, *Regional planning in England*

and Wales, by F. J. Osborn; No. 4, *The war and the planning outlook*, by William A. Robson; No. 5, *Plan for living—the architect's part*, by Clough Williams-Ellis; No. 6, *Industry and town planning*, by Roland Pumphrey; No. 7, *The land and planning*, by F. J. Osborn; No. 8, *Planning and the countryside*, by F. J. Osborn. London, Faber & Faber, Ltd., 1941 and 1942. Various paging. 1 shilling each.

Prices

Retail prices of food and coal [*United States*], *1941*. Washington, U. S. Bureau of Labor Statistics, 1942. 35 pp., charts. (Bull. No. 707.) 10 cents, Superintendent of Documents, Washington.

Typical residential electric bills, East North Central States—Illinois, Indiana, Michigan, Ohio, and Wisconsin—January 1, 1942. Washington, Federal Power Commission, 1942. 63 pp.

Rates charged for residential electric service in communities of 250 population or more, presented in the form of typical net monthly bills. Similar reports for other geographic divisions, and for cities of 50,000 population and over, have been prepared by the Federal Power Commission.

Prices in Canada and other countries, 1941. Ottawa, Department of Labor, 1942. 25 pp., chart.

Index numbers of retail and wholesale prices and cost of living in Canada and various other countries in 1941 and earlier years.

Retail prices (notices) order [*Great Britain*], *1942*. London, Ministry of Food, 1942. 40 pp.

Part 1 lists retail controlled prices for merchants and part 2 lists foods included in the "points" rationing scheme.

Standard schedule of prices [*Great Britain*], *January 1942*. London, Ministry of Works and Buildings, Central Council for Works and Buildings, 1942. 87 pp.

For use in standard type building and civil engineering work for quick calculation of costs of labor and materials and making of measurements.

Subsidies and price control. By Raymond F. Mikesell and C. Edward Galbreath. (In American Economic Review, Evanston, Ill., September 1942, pp. 524–537; $1.25.)

British and Canadian experiences in the use of subsidies are briefly described, and viewed as successful. Several circumstances in the United States are mentioned as supporting the adoption of a policy of subsidies. It is held that on broad economic grounds subsidies are justifiable as a method of enabling high-cost producers who are not able to reduce their costs to contribute to war production without resort to higher prices, and also as a method of making it possible for persons with small earnings to obtain a more nearly equitable share of essential cost-of-living commodities.

Anuario estadístico correspondiente al año de 1940 [*El Salvador*]. San Salvador, Dirección General de Estadística, [1942?]. 367 pp.

Includes retail prices of various items of food, 1936–40, and of construction materials, livestock, etc., in early 1940.

Production and Productivity of Labor

Arranging shifts for maximum production. Washington, U. S. Department of Labor, Division of Labor Standards, 1942. 8 pp.

Production—a plan for war industry. By Hephæstus Smith. London, New Statesman and Nation, 1942. 32 pp. 6d.

A plan for achieving maximum production in Great Britain by rationalization and cooperation between employers and employed.

War in the workshops. By Jack Owen. London, Lawrence & Wishart, [1942?]. 72 pp.

Discusses the responsibility of workers for putting forth their greatest effort in producing to win the war.

Developments affecting productivity in cotton-goods industry. Washington, U. S. Bureau of Labor Statistics, 1942. 7 pp. (Serial No. R. 1470, reprint from July 1942 Monthly Labor Review.)

Productivity in slaughtering and meat-packing industry, 1919–41. Washington, U. S. Bureau of Labor Statistics, 1942. 8 pp. (Serial No. R. 1460, reprint from May 1942 Monthly Labor Review.)

Sickness Insurance and Medical Care

Efficacy and economy of medical and pharmaceutical benefits in health-insurance plans. Prepared by Edgardo Rebagliati for Inter-American Committee to Promote Social Security. Montreal, International Labor Office, 1942. 21 pp.

Formulating a disability program—an analysis of problems with special regard to the situation in the United States. Prepared by A. J. Altmeyer for Inter-American Committee to Promote Social Security. Montreal, International Labor Office, 1942. 39 pp.

Protection of the people's health through social insurance: Basic ideas for a general health program derived from a Chilean experience. Prepared by Julio Bustos A. and Manuel de Viado G. for Inter-American Committee to Promote Social Security. Montreal, International Labor Office, 1942. 20 pp.

The subjects of the three reports listed immediately above constitute three items on the agenda of the Inter-American Conference on Social Security, held at Santiago de Chile, September 10–16, 1942.

Some recent developments in voluntary health insurance. By Margaret C. Klem. (In Social Security Bulletin, U. S. Social Security Board, Washington, August 1942, pp. 5–16; 20 cents.)

The types of prepayment medical plans covered in the study include industrial plans, plans sponsored by State or county medical societies, physician-owned medical plans, consumer-sponsored plans, the plans developed by the Farm Security Administration, and hospitalization insurance.

The intelligent consumer's guide to hospital and medical plans. By Harold Maslow. New York, League for Industrial Democracy, 1942. 32 pp. 15 cents.

Describes briefly various voluntary hospital and medical-service plans.

New York State's public medical care program. By Lee C. Dowling. (In New York State Journal of Medicine, New York City, May 1, 1942, pp. 904–913; also reprinted.)

Description of the public medical-care program sponsored in New York, exclusive of New York City, by the State Department of Social Welfare and the Medical Society of the State of New York.

The aims and achievements of the Chilean Preventive Medicine Act. By Manuel de Viado G. (In International Labor Review, Montreal, August 1942, pp. 123–135; 60 cents.)

Presents information on the background, principles, and working of the Chilean Preventive Medicine Act of 1938.

The hospital services—a policy for the war and post-war period [*Great Britain*]. By Somerville Hastings. London, Victor Gollancz, Ltd., 1941. 24 pp. (Fabian Society research series, No. 59.) 6d.

Wages and Hours of Labor

Earnings and hours in the aircraft industry. By Robert A. Sayre. (In Management Record, National Industrial Conference Board, Inc., New York, August 1942, pp. 241, 242; charts.)

The National Industrial Conference Board has expanded the coverage of its regular surveys of earnings and hours to include the aircraft industry, and presents the first report for the industry in this article. Average hourly and weekly earnings and average hours worked per week per wage earner are shown for all wage earners combined; for male and for female workers separately; and for unskilled, and skilled and semiskilled, male workers.

Wage rates per hour for building trades in the principal cities. Chicago, Builders Association of Chicago, 1942. Folder.

Wage rates of farm labor, per day and per month, with board and without board, 1866–1942. (In Crops and Markets, U. S. Department of Agriculture, Washington, May 1942, pp. 114–119; July 1942, pp. 150–155; 10 cents each.)
The May issue of Crops and Markets contains average monthly rates for each State, by year, from 1866 to 1922, inclusive, and by quarterly periods from January 1923 to April 1942. The July issue presents a similar compilation of average daily rates, to July 1942.

Wages and hours of union motortruck drivers and helpers, June 1, 1941. Washington, U. S. Bureau of Labor Statistics, 1942. 61 pp., chart. (Bull. No. 705, reprinted from February 1942 Monthly Labor Review, with additional data.) 10 cents, Superintendent of Documents, Washington.

Wage structure of motor-vehicle industry. By Harold R. Hosea and George E. Votava. Washington, U. S. Bureau of Labor Statistics, 1942. 49 pp. (Bull. No. 706, reprinted without change from Monthly Labor Review, February and March 1942.) 10 cents, Superintendent of Documents, Washington.

Union wages, hours, and working conditions in printing trades, June 1, 1941. Washington, U. S. Bureau of Labor Statistics, 1942. 81 pp., charts. (Bull. No. 708, reprinted from December 1941 Monthly Labor Review, with additional data.) 15 cents, Superintendent of Documents, Washington.

Incentive-wage plans and collective bargaining. Washington, U. S. Bureau of Labor Statistics, 1942. 18 pp. (Bull. No. 717, reprinted from July 1942 Monthly Labor Review, with additional data.)

Wartime Conditions and Policies

Los contratos de trabajo y el servicio de la defensa nacional. By E. Herz and I. Bessling. (In Revista de Trabajo, Ministerio de Trabajo, Madrid, November 1941, pp. 663–677.)
Discussion of the relation of the labor agreement to national defense, with respect to the return of employees to their former employment after military service, in 19 countries; and of payment of wages during military service in several of the countries.

Wartime controls in Canada. Ottawa, Department of Munitions and Supply, Economics and Statistics Branch, 1942. 35 pp.; mimeographed.
Deals principally with controls exercised by the Wartime Industries Control Board and the Wartime Prices and Trade Board, as of February 20, 1942.

Mobilization of industry and labor in Great Britain. Washington, U. S. Bureau of Labor Statistics, 1942. 16 pp. (Serial No. R. 1469, reprint from July 1942 Monthly Labor Review.)

Wartime transference of labor in Great Britain. [By Elizabeth Mayer Johnstone.] Montreal, International Labor Office, 1942. 163 pp. (Studies and Reports, Series C, No. 24.) $1.
A first-hand study of wartime transference of labor was made by the author, who ties in a description of the machinery with information as to how the system has actually worked.

Women in Industry

Women's work in the war. Washington, U. S. Women's Bureau, 1942. 10 pp. (Bull. No. 193.) 5 cents, Superintendent of Documents, Washington.
Gives data on extent of women's employment on war work, types of jobs filled by women, control of industrial home work in wartime, standards for lighting war-production plants, and war emergency acts affecting women in manufacturing.

Needed—women in aviation. By Dickey Meyer. New York, Robert M. McBride & Co., 1942. 219 pp., illus. $2.
Describes the many occupations in which women can serve in the aviation industry—on the assembly line, in the cockpit, at desks and radio transmitters, and at the making of weather maps; outlines the qualifications required; and gives practical suggestions as to how to prepare for and obtain aviation jobs.

Railroads recruit women workers. By Marie Deems. (In Railway Age, Philadelphia, Pa., September 5, 1942, pp. 375–377; 25 cents.)
Account of what the railroads are doing to recruit and train woman workers to take the place of men drafted into active service. The kinds of work in which women are being trained and used, and the increasing need of woman workers for these and other types of work on the railroads of the country, are discussed.

Mobilization of woman-power: Planning for part-time work [*Great Britain*]. London, Ministry of Labor and National Service, 1942. 12 pp.
The pamphlet deals with arrangements to be made in home and plant, discussing difficulties that arise in maintaining some of the staff on part time, shows the usual wages and hours for part-time work, and lists types of work on which women are being successfully employed.

Training and service for girls. London, Board of Education and Scottish Education Department, 1942. 17 pp.
Covers training and relation of women's work to the war effort in Great Britain.

Women fall in: A guide to women's work in wartime. By Edith Summerskill. London and Melbourne, Hutchinson & Co., Ltd., [1941]. 48 pp. 6d.
Guide to the new fields of wartime activity open to women in Great Britain and a tribute to their creditable response in courage, action, and endurance.

General Reports

Labor in the world today: A list of books and pamphlets selected by the readers' advisers of the New York Public Library, 1942. New York, Public Library, 1942. 8 pp.

The municipal year book, 1942: The authoritative résumé of activities and statistical data of American cities. Edited by Clarence E. Ridley and Orin F. Nolting. Chicago, International City Managers' Association, 1942. 685 pp., maps. $8.50.
Developments during 1941 in the fields of housing and of public health and welfare are shown, accompanied by lists of agencies and publications furnishing information on these subjects. The section of the volume devoted to municipal personnel includes data on salaries in 1942 of chief officials in cities of over 10,000 population, by population group.

Southern labor in wartime. By Labor Research Association. New York, International Publishers Co., Inc., 1942. 30 pp.
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Brief summary of the history of the Congo and of the economic, social, and labor policies pursued in the colony.

Formosa today. By Andrew J. Grajdanzev. New York, Institute of Pacific Relations, International Secretariat, 1942. 193 pp., bibliography, map. $1.
Analysis of the economic resources and development of Formosa, showing the effects of Japanese domination for nearly half a century and the importance of the island as a major base for the Japanese attack on the islands of the Far East.

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Account of the country and its people, steps toward giving the country Dominion status, structure of the Government, social welfare, and economics and industry.

Economic development of the Netherlands Indies. By Jan O. M. Broek. New York, Institute of Pacific Relations, International Secretariat, 1942. 168 pp. $2.
Describes the islands and their people, industrial development, foreign trade, recent changes in economic policy, and post-war prospects.

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

+ HUGH S. HANNA, EDITOR +

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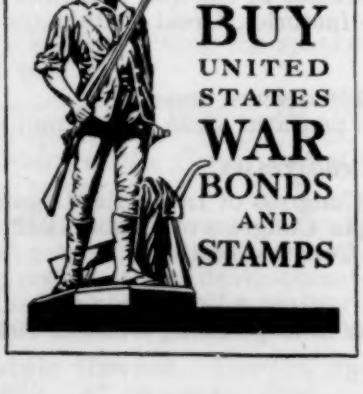

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This Issue in Brief

Housing in 138 defense areas.

During the 32 months ending with August 1942, approximately 936,000 new dwelling units were provided in 138 defense areas included in the Defense Housing Survey. Of these, about 212,000 were financed publicly and nearly 724,000 were financed by private sources. Although complete data are not obtainable, at least 50,000 additional dwellings were made available through conversion or alteration of existing structures.

The defense-housing units privately financed in the areas covered by the Defense Housing Survey formed 48.4 percent of the total nonfarm dwellings so financed in 1940, the percentage rising to 51.6 in 1941, and 61.1 in the first half of 1942. The number of dwelling units constructed per 10,000 of population was highest in the Pacific States and lowest in the New England and Middle Atlantic States. Page 1203.

Wartime wages and manpower in farming.

Comparisons of farm and nonfarm wages throw light on the supply of farm labor. The farm wage rate in July 1942 was 61 percent higher than in July 1939, but the average daily rate without board on farms in July 1942 was $2.45 in contrast to the entrance wage of $5.08 earned for an 8-hour day by the average adult male common laborer. Farm rates per day without board ranged in July 1942 from $4.85 in Washington to $1.15 in South Carolina, a much wider variation than in the rates of adult male common labor. The general farm wage rate in July 1942, not adjusted to cost of living, was about double the rate in the parity period (1910–14), but the rates of various types of nonfarm workers ranged from three to four times as high as in the parity period. The trend of farm wages per unit of farm output after the parity period was much below the trend of prices paid by farmers. Page 1111.

Injuries in the iron and steel industry.

General increases both in the actual number of accidents and in their frequency in relation to man-hours of employment occurred in the iron and steel industry in 1941. The proportion of injuries resulting in death or permanent total disability remained unchanged. The proportion of injuries resulting in permanent partial disability declined from 10.2 to 8.4 percent, and the average time lost from temporary disabilities declined from 28 days per case in 1940 to 26 days in 1941. Altogether, occupational injuries in the 1,852 reporting departments of the industry resulted in an economic-time loss of 2,149,548 man-days. An analysis of the accident experience of the industry as a whole and of the various departments is given in an article on page 1191.

Earnings in aircraft-engine plants.

Straight-time hourly earnings of first-shift workers in aircraft-engine plants averaged $1.039 in May 1942. The earnings of workers in individual occupations ranged from an average of 62.9 cents for learners and 80.0 cents for packers to $1.404 for floor molders. Approximately three-fourths of all first-shift workers were in jobs averaging $1 an hour or more. Page 1230.

Labor situation in western lumber industry.

An acute shortage of labor has developed during 1942 in logging and sawmill establishments of the western United States. Experienced woodsmen and mill workers are being drawn to higher-paid war jobs and to the armed forces. During the active summer season separations averaged almost 15 percent per month, while it became increasingly difficult to obtain replacements. Production of

lumber, consequently, has not increased in accordance with the growing demand occasioned by the war. The Government is attempting to relieve the situation by various measures designed to encourage longer working hours and to stabilize employment in the industry. Page 1125.

Manpower-control policies in Great Britain.

Nearly three-fourths of the population of Great Britain between the ages of 14 and 65 was engaged in full-time work for the nation in one capacity or another in the autumn of 1942, in addition to millions of part-time volunteers. Less than 3,000,000 persons, including the sick, crippled, and aged, were not engaged in the war effort. With mobilization of manpower reaching the limit and workers engaged for a long workweek, the only possible means of increasing production lies in the reduction of absenteeism and greater individual output. The measures adopted by the British to make the most economic use of the labor force and to mitigate individual hardships are described in an article on page 1134.

Earnings in the manufacture of miscellaneous metalworking machinery.

Average earnings in plants manufacturing various types of metalworking machinery increased about 11 cents an hour between August 1939 and the spring of 1942. At least half of this increase was the result of extra payments for overtime and night work. Exclusive of such extra payments, hourly earnings of day-shift workers in the more important occupations averaged 82.1 cents in 1942. About a fourth of the workers were in occupational groups showing average earnings above $1 per hour. Page 1236.

Effects of Canadian price ceiling.

Imposition of the Canadian price ceiling has prevented substantial price increases in the first year of operation, according to an official Canadian Government statement. Losses in efficiency were avoided that would have resulted if workers had struggled for higher wages and the inflationary process had gained momentum. Emphasis has shifted from the obvious problems of pricing to the underlying problems of supplying materials and, most important of all, manpower. Inflationary tendencies became apparent in the summer of 1941. Without the price ceiling it is estimated that the rise in the index would have been 1 percent monthly between last November and August of this year, whereas the actual increase was 1 percent for the 10 months. Ceilings were established at the highest prices in the base period, September 15 to October 11. Page 1156.

Insurance against intermittent unemployment in Ireland.

Compulsory insurance was established in Ireland, providing for compensation for intermittent unemployment in the building trades, by a recent law. The Ministry for Industry and Commerce is given authority to include other trades if he deems them "insurable employment." Weekly contributions from employers and workers are provided for. Page 1167.

Earnings in the manufacture of food-products machinery.

Average hourly earnings in plants manufacturing various types of food-products machinery increased 17.8 cents—from 67.3 to 85.1 cents—between August 1939 and the summer of 1942. Part of the increase was due to increased payments of overtime; the actual increase in rates is estimated at about 11 cents an hour. The average workweek increased by over 8 hours. About a seventh of the male workers were in occupations with average earnings of over $1 per hour; approximately a sixth were in groups averaging less than 60 cents an hour. Page 1241.

Union scales in the building trades.

Journeymen in the building trades in 75 cities had union scales of wages averaging $1.556 per hour, as of July 1, 1942. Helpers and laborers' rates averaged 83.9 cents. For the whole building-trades group the average was $1.362. The above rates represent an increase of 5.6 percent for journeymen as compared with June 1, 1941, of 10.0 percent for helpers and laborers, and of 6.3 percent for all building-trades workers combined.

Weekly working hours permitted under collective agreements averaged 39.5 on July 1, 1942—39.2 for journeymen and 40.3 for helpers and laborers. The 40-hour week was by far the most commonly provided for, covering 82.4 percent of the trade-union members. Page 1251.

MONTHLY LABOR REVIEW

FOR DECEMBER 1942

WARTIME WAGES AND MANPOWER IN FARMING

By WITT BOWDEN, *Bureau of Labor Statistics*

ABOUT one out of four workers on farms is a hired worker, the others being classified as family workers, including farm operators. Estimates of farm employment for 1942 indicate slight declines from the pre-war years. On October 1, 1942, for example, the number was 11,921,000 as compared to 12,241,000 on October 1, 1939. Most of this decline of 2.6 percent, however, was in the group of family workers. The number of hired farm workers was 3,268,000 on October 1, 1942, as compared to 3,280,000 on October 1, 1939.[1]

The decline in number of farm workers was small, but there was nevertheless a serious shortage of workers in 1942. The estimated volume of farm production was 18 percent greater in 1942 than in 1939.[2] War conditions called for still larger production and also for changes in the types of farm products. Farmers found it necessary to hire an increasing proportion of inexperienced workers. Reports of the Department of Agriculture's crop correspondents indicated, for October 1, 1942, a record low in the supply of workers available for hire, the supply being much below the demand.[3]

The problem of the farm-labor supply is of course a part of the general problem of manpower in production and in the armed forces. The shortage of farm labor, however, is connected in a peculiar way with farm wages. The farmers have failed to prevent a decline in the number of hired workers in spite of exceptional wartime increases in wages, and one of the causes was the relatively low level of pre-war farm wages.

Comparison of Farm and Nonfarm Wages

In October 1942, after the exceptional wartime increases in farm wages, the average daily wage without board was $2.76. The July average was $2.45. The working time probably averaged not less than 10 hours per day. The hourly wage thus averaged less than 25 cents in July and less than 28 cents in October.

In July 1942, the hourly wage of section men in steam railroad transportation averaged 53.3 cents, or, on the basis of an 8-hour

[1] U. S. Department of Agriculture. Bureau of Agricultural Economics. Farm Labor Report, April 16 and October 16, 1942. This report, issued each month, gives monthly employment statistics and quarterly wage rates.

[2] U. S. Department of Agriculture. Bureau of Agricultural Economics. The Farm Income Situation, September 1, 1942, p. 17.

[3] U. S. Department of Agriculture. Bureau of Agricultural Economics. Farm Labor Report, October 16, 1942.

CHART I
FARM AND NONFARM DAILY WAGES
JULY 1942
DOLLARS
0
1
2
3
4
5
6
7
HIRED FARM WORKERS: DAY RATE WITHOUT BOARD
$2.45
RAILROAD SECTION MEN
4.26
ROAD CONSTRUCTION LABORERS, UNSKILLED
4.72
ADULT MALE COMMON LABORERS: ENTRANCE RATE
5.08
BUILDING CONSTRUCTION LABORERS: UNION RATE
6.30
NONFARM WAGES ARE HOURLY FIGURES TIMES 8
Sources: U.S. BUREAU OF AGRICULTURAL ECONOMICS
U.S. BUREAU OF LABOR STATISTICS
U.S. RAILROAD RETIREMENT BOARD
U.S. PUBLIC ROADS ADMINISTRATION
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

day, $4.26 per day. The unweighted average entrance rate of adult male common laborers in 13 industries in July 1942 was 63.5 cents per hour or $5.08 for an 8-hour day. This average covers 9 manufacturing industries, 3 public utilities, and building construction. The figure, which differs from the weighted average for 20 industries, was computed for the purpose of maintaining comparability to the averages for earlier years in the series reflecting the trend of hourly entrance rates since 1926. The wage rate of unskilled road-construction labor (Federal-aid projects) at the same date averaged 59 cents per hour, or $4.72 for an 8-hour day. The union rate of building laborers on July 1, 1942, averaged 78.8 cents per hour, or $6.30 for an 8-hour day. (See chart 1.)

Most of the workers in the four nonfarm groups are adult males. Some women and comparatively young workers are employed on farms, and farmers in reporting wage rates presumably give some weight to the rates paid to these workers. The workers in the four nonfarm groups, however, are almost all unskilled, and many farm workers are at least semiskilled. The importance of skill in farming, little recognized when there is an abundant supply of workers, becomes apparent when farmers have to do their own work or employ inexperienced workers.

The manufacturing industry with the lowest average wage in July 1942 was the cottonseed oil, cake, and meal industry. Earnings in that industry in July averaged 41.0 cents per hour, or $3.28 for an 8-hour day, in contrast to $2.45 per day without board on farms in July and $2.76 in October 1942 for about 10 hours of work. If farm wages are limited to the States where the cottonseed-oil industry is mainly located, the contrast is much more marked. The manufacturing industry with the next lowest earnings was the shirt and collar industry, the figure for July 1942 being 51.4 cents per hour, or $4.11 for an 8-hour day. Other comparatively low average earnings were 52.6 cents in men's furnishings and 52.8 cents in knitted underwear and in cotton goods. The lowest industry averages in nonmanufacturing industries in July 1942 were 38.6 cents per hour (not including perquisites) in year-round hotels, 48.2 cents in laundries, and 51.4 cents in general merchandising.

Employers covered by the Fair Labor Standards Act were required, after October 24, 1939, to pay not less than 30 cents per hour, this figure applying (with minor exceptions such as learners) to all employees. The minimum in a large number of industries has been raised to 40 cents by administrative action under the law. Under the Fair Labor Standards Act, the minimum daily wage, assuming an 8-hour day, was $2.40 after October 24, 1939. Thus, the lowest-paid workers under the Fair Labor Standards Act received for 8 hours of work, as early as October 1939, about the same amount as the average hired farm worker obtained for approximately 10 hours of work in July 1942. Most workers subject to the Fair Labor Standards Act receive at least $3.20 for an 8-hour day.

Farm workers receive some compensation in the form of perquisites. The estimated value of all perquisites, including board, is about 25 to 30 percent of the total wage bill.[4] Most of the perquisites go to

[4] U. S. Department of Agriculture. Income Parity for Agriculture, Part II, Section I (Preliminary), The Cost of Hired Farm Labor, p. 5. Washington, 1939.

workers whose wages include board, and especially to the regular workers who are hired by the month. In percentage form, the difference between total wages including perquisites and total cash wages is not greatly in excess of the difference between the average wage without board and the average wage with board. The value of perquisites received by workers who are paid by the day, without board, probably averages less than one-tenth of their cash wage. Perquisites also add to the earnings of some nonfarm workers, as hotel employees, railroad section men in some areas, and workers in retail-trade establishments.[5] If the average daily wage of hired farm workers is increased by 10 percent, a liberal estimate, the farm wage is still far below nonfarm cash wages.

Regional Differences in Farm and Nonfarm Wages

The regional range of farm wage rates is much greater than that of the wages of unskilled industrial workers. This is no doubt in part a reflection of the varying degrees of skill required in farm work. Thus, dairying and sheep raising require more skill than cotton growing. However, the job requirements of many farm workers, even in areas of the simpler farm specialties such as cotton, are not less exacting than those of skilled or at least semiskilled nonfarm workers.

The highest State average farm wage per day without board in October 1942 was $6.10, in Washington, and the lowest was $1.25, in South Carolina (table 1). Thus, the highest average was about five times as large as the lowest average. This difference was greater than the maximum difference in July 1942, when the highest State average ($4.85, in Washington) was 4.2 times as large as the lowest average ($1.15, in South Carolina). The difference in July 1942 was greater, in turn, than the maximum difference in July 1939, when the highest State average ($3.05 per day, in Rhode Island) was 3.8 times as large as the lowest average ($0.80 per day, in South Carolina).

State figures of nonfarm wages are available only in limited fields. Reports of hourly entrance rates of adult male common laborers in 20 industries in the fields of manufacturing, utilities, and construction afford the most extensive regional comparisons with farm wage rates, and these entrance rates show a much smaller range. The highest State average in July 1939 was 62.9 cents, in Washington. The average rate in that State was 2.4 times as large as the lowest State average, 26.2 cents, in Georgia.

Hourly wage rates of unskilled workers on Federally aided road-construction projects are available by Census geographic divisions. The highest regional average for road construction in July 1942 (95 cents per hour in the Pacific States) was 2.3 times as large as the lowest average (41 cents in the East South Central and also in the West South Central States). (See table 2.) The highest regional average for farm work per day without board in July 1942 ($4.56 per day in the Pacific States) was 3.2 times as large as the lowest average ($1.42 per day in the East South Central States). In July 1939, the regional range of rates for unskilled work in road construction was approximately the same as in July 1942. In farm work, the range of rates was wider in July 1942 than in July 1939, when the highest average ($2.71 per day in the New England States) was 2.6 times as

[5] Particularly the privilege of buying at a discount.

large as the lowest average ($1.04 per day in the East South Central States). The two geographic divisions with the lowest farm wage rates in July 1939 (the East South Central and the South Atlantic) had the smallest increases between July 1939 and July 1942.

TABLE 1.—*Farm Wage Rates per Day Without Board and Hourly Entrance Rates of Adult Male Common Laborers, by States*

State [1]	Common-labor hourly entrance rates, July 1939 [2]	Farm wage rates per day without board [3]			
		July 1, 1939	July 1, 1942	Percent of increase, July 1, 1939, to July 1, 1942	October 1, 1942
United States	$0.499	$1.59	$2.45	54.1	$2.76
Washington	.629	2.60	4.85	86.5	6.10
California	.575	2.80	4.50	60.7	5.50
Oregon	.586	2.45	4.25	73.5	5.40
Montana	.604	2.60	4.10	57.7	5.80
Idaho	.561	2.50	4.10	64.0	4.85
New Hampshire	.477	3.00	3.90	30.0	3.95
Connecticut	.544	2.90	3.90	34.5	4.05
Rhode Island	.559	3.05	3.80	24.6	4.20
Vermont	.425	2.45	3.75	53.1	3.75
Kansas	.513	2.15	3.75	74.4	3.95
Massachusetts	.534	2.85	3.70	29.8	4.15
Iowa	.536	2.35	3.70	57.4	4.15
Wyoming	.549	2.30	3.70	60.9	4.50
Maine	.455	2.25	3.65	62.2	4.15
New York	.548	2.35	3.65	55.3	4.25
Utah	.477	2.60	3.65	40.4	4.20
New Jersey	.556	2.50	3.60	44.0	4.00
Minnesota	.580	2.35	3.50	48.9	4.60
Nevada	----	2.80	3.50	25.0	4.60
Nebraska	.495	1.95	3.40	74.4	4.10
North Dakota	----	1.95	3.40	74.4	6.20
Colorado	.580	2.10	3.40	61.9	4.30
Michigan	.551	2.25	3.35	48.9	3.80
Wisconsin	.523	2.05	3.30	61.0	3.75
Illinois	.581	2.25	3.25	44.4	3.75
South Dakota	.478	2.00	3.25	62.5	4.85
Pennsylvania	.553	2.25	3.20	42.2	3.45
Ohio	.576	2.15	3.10	44.2	3.55
Indiana	.566	1.95	3.00	53.8	3.45
Arizona	.449	2.10	3.00	42.9	3.50
Delaware	.452	1.90	2.95	55.3	4.30
Maryland	.492	1.95	2.90	48.7	3.75
Oklahoma	.417	1.55	2.55	64.5	2.80
New Mexico	.396	1.65	2.40	45.5	2.85
Missouri	.556	1.50	2.30	53.3	2.70
West Virginia	.546	1.50	2.10	40.0	2.30
Virginia	.333	1.45	2.10	44.8	2.55
Texas	.398	1.30	2.05	57.7	2.60
Kentucky	.463	1.30	1.75	34.6	2.30
Florida	.283	1.25	1.75	40.0	2.05
North Carolina	.275	1.20	1.70	41.7	2.05
Arkansas	.302	1.05	1.60	52.4	2.05
Tennessee	.322	1.05	1.45	38.1	1.75
Louisiana	.333	1.05	1.35	28.6	1.70
Alabama	.370	.90	1.35	50.0	1.65
Mississippi	.322	.95	1.30	36.8	1.60
Georgia	.262	.90	1.25	38.9	1.45
South Carolina	.267	.80	1.15	43.8	1.25

[1] Arranged in descending order of farm wage rates as of July 1, 1942.

[2] Unweighted averages of 20 industries (16 manufacturing industries, 3 public utilities, and building construction). See Entrance Rates of Common Laborers, July 1939, in Monthly Labor Review, December 1939 (pp. 1452-1454).

[3] U. S. Department of Agriculture. Bureau of Agricultural Economics. Farm Labor Report, October 16, 1942, and earlier issues. The daily rate divided by 10 gives the hourly rate, closely comparable to the entrance rate (first column).

TABLE 2.—*Farm Wage Rates per Day Without Board and Hourly Rates of Unskilled Road-Construction Labor on Federal-aid Projects, by Regions, 1939 and 1942*

Geographic division	Farm wage rates per day without board [1]			Hourly rates of unskilled labor in road construction [2]		
	July 1, 1942	July 1, 1939	Percent of increase, July 1, 1939, to July 1, 1942	July 1942	July 1939	Percent of increase, July 1939 to July 1942
United States	$2.45	$1.59	54.1	$0.59	$0.43	37.2
New England	3.76	2.71	38.7	.69	.49	40.8
Middle Atlantic	3.48	2.33	49.4	.69	.52	32.7
East North Central	3.20	2.15	48.8	.75	.60	25.0
West North Central	3.29	2.06	59.7	.60	.47	27.7
South Atlantic	1.64	1.20	36.7	.48	.29	65.5
East South Central	1.42	1.04	36.5	.41	.29	41.4
West South Central	1.92	1.26	52.4	.41	.35	17.1
Mountain	3.53	2.34	50.9	.71	.56	26.8
Pacific	4.56	2.70	68.9	.95	.65	46.2

[1] U. S. Department of Agriculture. Bureau of Agricultural Economics. Farm Labor Report, Oct. 11, 1940, and July 14, 1942.
[2] Data from the Public Roads Administration of the U. S. Federal Works Agency.

Wartime Changes in Farm Wage Rates

The general index of farm wage rates, when adjusted for seasonal variation, was 61 percent higher in July 1942 and 75 percent higher in October 1942 than in July 1939. The farm wage rate most nearly comparable to other wage figures, such as those of railway section men and common laborers in manufacturing, is the farm rate per day without board. This wage rate, not adjusted for seasonal variation, was 54 percent higher in July 1942 and 74 percent higher in October 1942 than in July 1939.

These increases are greater than the advances in other major fields of employment. Between July 1939 and July 1942, section men in railroad maintenance work obtained increases averaging 30 percent.[6] The average hourly entrance rate of adult male common laborers in 13 manufacturing, construction, and public-utility industries rose 27 percent. The average hourly wage rate of building laborers rose 20 percent. Unskilled workers in road building on Federally aided projects obtained on the average a 37-percent rise.[7] In manufacturing as a whole, average hourly earnings rose 33 percent. The rise in bituminous-coal mining was 22 percent. In most of the nonmanufacturing industries the increases were smaller than in bituminous-coal mining.

The general increase in farm wages from 1939 to 1942 was exceptionally large and the increases in most of the States were larger than the rise in hourly earnings in other major employments. There were significant variations, however, in the extent of the increases (see table 1). The smallest rise in the daily wage without board was 25 percent (in Rhode Island), and the largest advance was 87 percent (in the State of Washington). With two exceptions (Texas and Oklahoma), the increases in the States with below-average wages in 1939 were smaller than the increase in the country as a whole.

[6] From wage statistics compiled by the Interstate Commerce Commission.
[7] From wage statistics compiled by the Public Roads Administration of the Federal Works Agency.

Relatively large percentage increases occurred in farm wages from 1939 to 1942, but the actual levels of farm wages were exceptionally low, as indicated above, even after these increases. In addition, there had been lags in farm wages before 1939.

Changes in Farm and Nonfarm Wages, 1909–39

The adoption of the years 1910 to 1914 as a parity period in price and income policy gives major importance to trends of wages as well as prices since that period. The term "parity" applies to the prices received by farm operators in relation to prices paid by them, and also to the incomes of persons on farms in relation to the incomes of persons not on farms.

Indexes of farm wages are available for the years of the parity period, that is, 1910–14. Index of wages in various nonfarm employments (chart 2 and table 3) are based on data for years when wages were approximately the same as in the parity period. The weighted average farm wage rate in 1939 was 23 percent higher than in 1910–14, and the rate per day without board was 10 percent higher. The general rate (without adjustment for seasonal variation) was 102 percent higher in July 1942 than in 1910–14, and the rate per day without board was 73 percent higher.

TABLE 3.—*Changes in Farm Wage Rates and in Earnings of Nonfarm Wage Earners From the 1910–14 Parity Period to 1939 and July 1942*

Wage group	Base period [1]	Index numbers		Nature of data
		1939	July 1942	
Hired farm workers: [2]				
All groups	1910–14	123	202	Weighted average of wage rates per month and per day.
Day workers without board	1910–14	110	173	Wage rates per day without board.
Railroad section men and extra gangmen. [3]	1914	272	356	Average hourly earnings.
Unskilled road-construction workers [4]	1915	210	295	Hourly wage rates, Federal-aid projects.
Building laborers	1910–14	[5] 301	360	Union hourly wage rates.
Manufacturing (all wage earners)	1909 and 1914	310	409	Average hourly earnings.
Mining (anthracite, bituminous-coal, and metalliferous).	1909 and 1914	261	315	Do.
Steam railroads (class I) [3]	1909 and 1914	300	343	Do.

[1] The years 1910–14 are defined for purpose of farm policy as a price and income parity period. Lack of complete data for these years on some of the nonfarm wage series makes necessary the use of figures for slightly different periods.

[2] U. S. Department of Agriculture, Bureau of Agricultural Economics, Farm Labor Report, Oct. 16, 1942. The farm wage rates are monthly or daily rates, but since the hours of work on farms have undergone relatively little change, the comparison with trends of nonfarm hourly earnings is affected only to a slight degree.

[3] U. S. Interstate Commerce Commission. Statistics of Railways, 1910, 1915, and Wage Statistics, year 1939 and July 1942.

[4] Data from the Public Roads Administration of the U. S. Federal Works Agency.

[5] July.

In contrast to these figures of farm wages is the average hourly wage of section men and extra gang men in railroad maintenance work. The average in 1939 was 172 percent higher than in 1914, and in

CHART 2
PERCENTAGE INCREASES IN FARM AND NONFARM WAGES
1914 TO JULY 1942
PERCENT
0
50
100
150
200
250
300
HIRED FARM WORKERS: DAY RATE WITHOUT BOARD
71
HIRED FARM WORKERS: GENERAL RATE
100
ROAD CONSTRUCTION LABORERS,* UNSKILLED
195
BUILDING CONSTRUCTION LABORERS: UNION RATE
247
RAILROAD SECTION MEN AND EXTRA GANGMEN
256
MINE WORKERS
201
RAILROAD WORKERS
220
FACTORY WORKERS
281
NONFARM WAGES ARE HOURLY EARNINGS OR RATES
* 1915 TO JULY 1942
Sources U.S. BUREAU OF AGRICULTURAL ECONOMICS
U.S. BUREAU OF LABOR STATISTICS
U.S. INTERSTATE COMMERCE COMMISSION
U.S. PUBLIC ROADS ADMINISTRATION
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

July 1942, 256 percent higher than in 1914.[8] The hourly rate of unskilled workers in road construction (Federal-aid projects) was 110 percent higher in 1939 and 195 percent higher in July 1942 than in 1915. The union average hourly rate of building laborers was 201 percent higher in July 1939 and 260 percent higher in July 1942 than in 1910–14. The general average of the hourly earnings of all wage earners in manufacturing industries was 210 percent higher in 1939 and 309 percent higher in July 1942 than the average of the years 1909 and 1914. The corresponding increases in coal and metal mining were 161 percent and 215 percent, and in steam railroads, 200 percent and 243 percent.

The lag in farm wages after 1909, as compared to the earnings of factory workers, is apparent from estimates of the average yearly earnings of the two groups. The average factory worker earned in 1909 about twice as much as the average hired farm worker. The farm average was lower in 1933 than in 1909 but the factory average was much higher, so that the farm worker earned only about one-fourth as much as the factory worker. The farm worker's earnings rose more than those of the average factory worker after 1933, but in 1941 the average farm worker still received only about one-third as much as the average factory worker. (See table 4.)

TABLE 4.—*Average Income of Hired Farm Workers as Percentage of Average Income of Factory Workers, 1909 and 1914–41*

Year	Average annual income of—		Average income of hired farm workers as percentage of average income of factory workers	Year	Average annual income of—		Average income of hired farm workers as percentage of average income of factory workers
	Hired farm workers[1]	Factory workers[2]			Hired farm workers[1]	Factory workers[2]	
1909	$256	$512	50.0	1928	$429	$1,298	33.1
1914	276	573	48.2	1929	430	1,302	33.0
1915	278	597	46.6	1930	398	1,209	32.9
1916	305	669	45.6	1931	315	1,085	29.0
1917	384	792	48.5	1932	234	881	26.6
1918	470	1,012	46.4	1933	210	854	24.6
1919	544	1,148	47.4	1934	256	941	27.2
1920	617	1,368	45.1	1935	305	1,015	30.0
1921	400	1,154	34.7	1936	344	1,083	31.8
1922	385	1,119	34.4	1937	395	1,179	33.5
1923	421	1,239	34.0	1938	382	1,079	35.4
1924	426	1,244	34.2	1939	378	1,153	32.8
1925	433	1,267	34.2	1940	390	1,225	31.8
1926	438	1,282	34.2	1941	470	1,457	32.3
1927	434	1,286	33.7				

[1] Income includes value of perquisites. U. S. Department of Agriculture, Bureau of Agricultural Economics, Net Farm Income and Income Parity Summary, 1910-41, Washington, 1942, p. 23. The 1909 figure is from Income Parity for Agriculture, Part II, Section 1, The Cost of Hired Farm Labor, p. 5. The annual wage bill is divided by the average number of hired farm workers as estimated by the Bureau of Agricultural Economics and published in Crops and Markets, January 1941, p. 5, with revisions in the July 1942 issue, p. 149.

[2] Computed from Bureau of Labor Statistics and Census of Manufactures data on total pay rolls and average number of wage earners. Part-time factory workers are included, as are part-time farm workers in computing the averages for farm workers, but in each case the number of wage earners is the average of 12 reporting periods and not the total number receiving wages.

[8] Comparable figures are not available before 1914. It is known, however, that wages were higher in 1914 than in 1910–14. Thus, the use of the 1914 figure gives an underestimate of the percent of change after the parity period. Hourly earnings rose more, however, than daily or weekly earnings, for working time in 1914 averaged about 10 hours per day and in 1939 about 8 hours. The figures of increases in hourly earnings in other nonfarm employments as well as section work are, for the same reason, not wholly comparable to the figures of farm wages, which are daily or monthly rates. Daily hours of work on farms, however, have undergone slight change, and the trend of daily rates of farm workers has therefore been similar to the trend of their hourly earnings.

The comparisons of the average yearly wages of hired farm workers and factory workers are affected by such circumstances as variations in the hours of work and the amount of part time. Hours of work fell sharply in manufacturing but appear to have undergone little change in farming. Comparisons of the annual averages therefore fail to show the real extent of the lag of farm wage rates after 1910–14.

Lag of Nonfarm Wages in Parity Period

Nonfarm wages rose much more after the parity period of 1910–14 than farm wages and also more than the income of farm operators. This relative rise of nonfarm wages appears to have been in part a result of the comparatively low levels of nonfarm wages in the parity period.[9]

The average wage of factory workers in the census years 1909 and 1914 was 22 percent higher than their average wage in the census year 1889 and 24 percent higher than in the census year 1899. The average of farm wage rates in the years 1909 and 1914 was 49 percent higher than the average in 1889 and 45 percent higher than the average in 1899. The average of the prices received by farmers for their products in the years 1909 and 1914 was 46 percent higher than the average in 1889 and 60 percent higher than the average in 1899.[10]

Indications of the lag of factory wages in relation to farm income in the parity period are to be found also in the trend of farm operators' real income per unit of farm production and in the trend of factory workers' real wages per unit of output in manufacturing.[11] The ratio of farm prices to cost of living (roughly, the farmer's real price or real income per unit of output) was below the ratio of the parity period (the 1910-14 average) in every year from 1878 to 1908 except in 1881 to 1884. Real farm income per unit of output, was about one-fifth below the 1909 and 1914 average in 1899, and about one-sixth below in 1879 and 1889. In contrast, the real factory wage per unit of output, was about 35 percent above the 1909 and 1914 average in 1899, and from 50 to 60 percent above in 1879 and 1889.

Thus, the current index numbers of farm income and factory wages, when based on the parity period, are to be interpreted in the light of the relatively low levels of factory wages in the parity period.

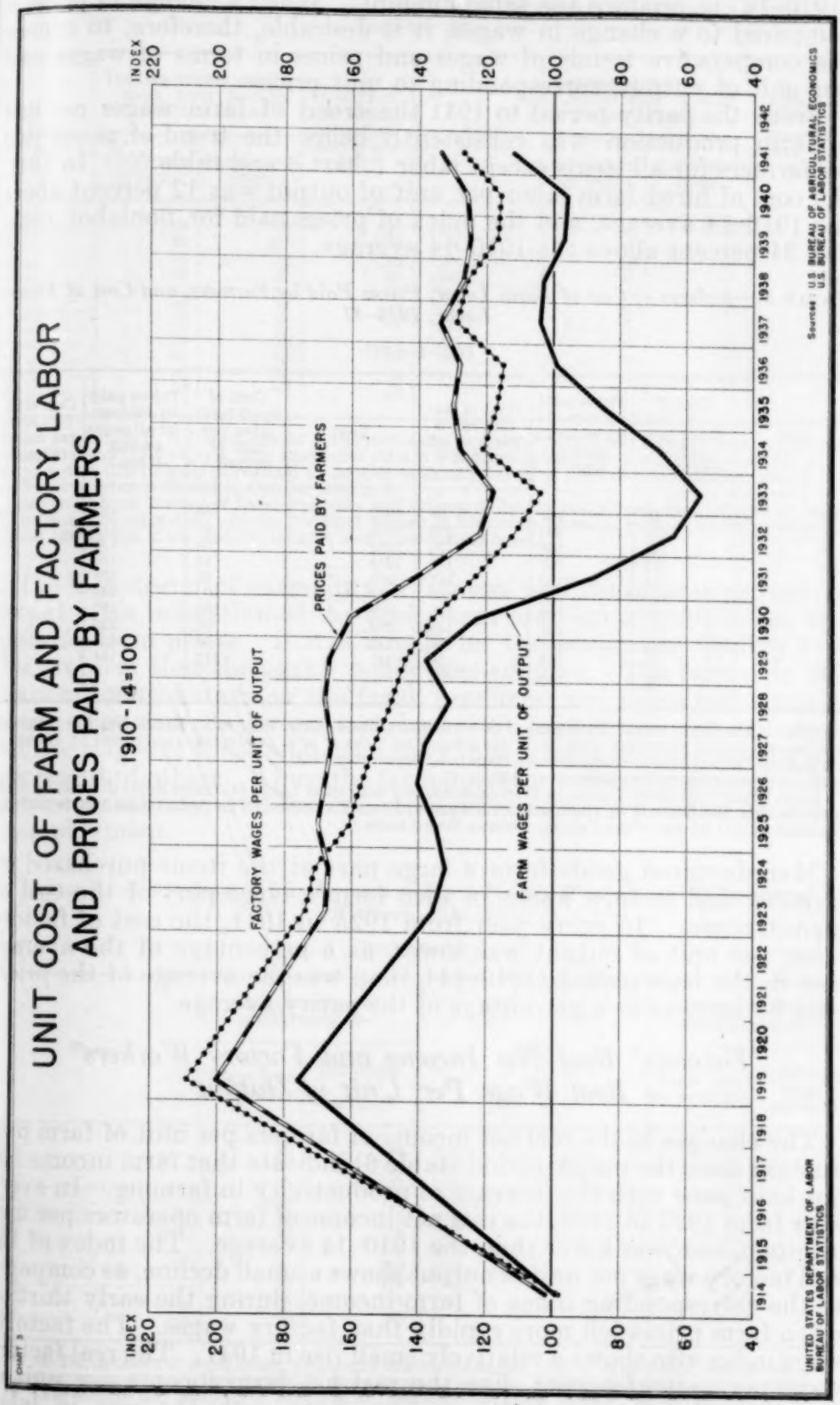
Farm Wages and Prices

The price received or the price paid by the farmer is the amount he receives or pays per bushel of wheat or gallon of milk or pair of shoes or ton of fertilizer. The farmer and those who work for him now have

[9] The lag of nonfarm wages in the parity period has been noted by various writers, as W. I. King, in Wealth and Income of the People of the United States (New York, 1915), pp. 167–169, and John G. Black, in Parity, Parity, Parity (Cambridge, 1942), p. 74.

[10] An index of the average farm wage rate per month is in U. S. Department of Agriculture's Reliability and Adequacy of Farm Wage Rate Data (p. 24), by R. F. Hale and R. L. Gastineau (Washington, 1940). Factory wages per worker are obtainable from the censuses of manufactures, U. S. Bureau of the Census. Farm income, price, and production indexes are in U. S. Department of Agriculture's Technical Bulletin No. 703, Gross Farm Income and Indices of Farm Production and Prices in the United States, 1869–1937, by Frederick Strauss and Louis H. Bean (Washington, 1940).

[11] The index of farm prices is the index adjusted for changes in the inventories of livestock, in U. S. Department of Agriculture's Technical Bulletin No. 703 (see footnote 10), p. 142, table 79, and the corresponding index of production is on p. 126, table 61. The index of factory wages per unit of output is derived from Bureau of the Census data on factory wages and the Federal Reserve Board index of production in manufacturing. Real income per unit and real wages per unit are measured by the use of the index of cost of living constructed by the Federal Reserve Bank of New York.


UNIT COST OF FARM AND FACTORY LABOR
AND PRICES PAID BY FARMERS
1910-14=100
CHART 3
INDEX
220
200
180
160
140
120
100
80
60
40
FACTORY WAGES PER UNIT OF OUTPUT
PRICES PAID BY FARMERS
FARM WAGES PER UNIT OF OUTPUT
1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
Source: U.S. BUREAU OF AGRICULTURAL ECONOMICS
U.S. BUREAU OF LABOR STATISTICS

to devote only about three-fifths as much time as in the parity period (1910–14) to produce the same amount. When a change in prices is compared to a change in wages, it is desirable, therefore, to express the comparative trends of wages and prices in terms of wages paid per unit of output, corresponding to unit prices.

From the parity period to 1941 the trend of farm wages per unit of farm production was consistently below the trend of prices paid by farmers for all items except labor (chart 3 and table 5). In 1941, the cost of hired farm labor per unit of output was 12 percent above the 1910–14 average, and the index of prices paid for nonlabor items was 34 percent above the 1910–14 average.

TABLE 5.—*Indexes of Cost of Farm Labor, Prices Paid by Farmers, and Cost of Factory Labor, 1914–41*

[1910–14=100]

Year	Cost of hired farm labor per unit of output [1]	Prices paid by farmers for all items except labor [2]	Cost of factory labor per unit of output [3]	Year	Cost of hired farm labor per unit of output [1]	Prices paid by farmers for all items except labor [2]	Cost of factory labor per unit of output [3]
1914	99	102	98	1932	64	122	112
1919	176	200	209	1933	56	118	104
1923	136	168	174	1934	68	128	121
1924	132	167	171	1935	85	130	117
1925	135	170	161	1936	99	128	115
1926	140	168	157	1937	104	134	129
1927	138	166	153	1938	103	127	126
1928	131	168	148	1939	97	125	117
1929	138	167	144	1940	96	126	116
1930	123	160	136	1941	112	134	127
1931	88	140	123				

[1] Index of total farm wages (from Bureau of Agricultural Economics' wage estimates in Net Farm Income and Incon e Parity Summary, 1910–41, p. 23) divided by index of farm production (published by Bureau of Agricultural Economics in Farm Income Situation, September 1942, p. 17).

[2] Farm Income Situation, September 1942, p. 17.

[3] Index of pay rolls (from Census of Manufactures and Bureau of Labor Statistics data) divided by index of production (constructed by the National Bureau of Economic Research for period from 1910 to 1939 and extended to 1941 by use of the Federal Reserve Board index).

Manufactured goods form a large part of the items purchased by farmers, and factory wages in turn form a large part of the cost of manufactures. In every year from 1925 to 1941, the cost of factory labor per unit of output was lower, as a percentage of the average cost in the base period (1910–14), than was the average of the prices paid by farmers as a percentage of the parity average.

Farmers' Real Net Income and Factory Workers' Real Wage Per Unit of Output

The changes in the real net income of farmers per unit of farm production since the parity period (table 6) indicate that farm income has not kept pace with the increase of productivity in farming. In every year from 1923 to 1942, the real net income of farm operators per unit of production was lower than the 1910–14 average. The index of the real factory wage per unit of output shows a small decline, as compared to the corresponding index of farm income, during the early thirties, when farm prices fell more rapidly than factory wages. The factory-wage index also shows a relatively small rise in 1941. The real factory wage per unit of output, like the real net farm income per unit of output, failed, up to 1941, to keep pace with the rise in labor productivity.

TABLE 6.—*Changes in Real Net Farm Income and Real Factory Wage Per Unit of Output, 1914–41*

[1910–14=100]

Year	Indexes of real net income from farming per unit of output [1]		Indexes of real factory wage per unit of output [2]	Year	Indexes of real net income from farming per unit of output [1]		Indexes of real factory wage per unit of output [2]
	All persons on farms	Farm operators			All persons on farms	Farm operators	
1914	99	99	96	1932	42	39	81
1919	99	101	119	1933	55	56	79
1923	71	70	100	1934	59	59	89
1924	69	67	98	1935	85	87	83
1925	83	84	90	1936	89	90	82
1926	78	78	87	1937	86	87	88
1927	77	77	87	1938	76	75	88
1928	79	79	85	1939	77	77	82
1929	82	83	82	1940	78	77	81
1930	67	65	80	1941	99	101	84
1931	51	49	79				

[1] Computed from U. S. Department of Agriculture data: net income data in Net Farm Income and Income Parity Summary, 1910–41, p. 4; farm production data in The Farm Income Situation, September 1942, p. 17; and price data (the index of prices paid by farmers for family living) in Agricultural Statistics, 1941, p. 555, and The Agricultural Situation, October 1942, p. 24.

[2] Computed from Bureau of Labor Statistics and Bureau of the Census pay-roll data, Bureau of Labor Statistics cost-of-living data, and the National Bureau of Economic Research production index extended beyond 1939 by use of the Federal Reserve Board production index.

The high degree of variability of farmers' real net income per unit of output is an indication of the basic farm problem of unbalanced and unstable farm prices. It was largely for the purpose of dealing with this problem that the parity policy was adopted. The farmer in bad times ordinarily stays on the farm, produces, and takes lower prices. Many wage earners, in contrast, lose their jobs entirely in bad times but the wages of those who keep their jobs are not affected by the displacement of others. Thus, the farm operator's characteristic problem is price instability, and the industrial wage earner's peculiar hazard is unemployment.

TABLE 7.—*Variations in Employment of Farm Family Workers and of Industrial Workers, 1914–41*

[1910–14=100]

Year	Index numbers of employment of—		Year	Index numbers of employment of—	
	Farm family workers [1]	Industrial wage earners [2]		Farm family workers [1]	Industrial wage earners [2]
1914	99	98	1932	94	75
1919	91	124	1933	94	80
1923	93	121	1934	93	92
1924	93	113	1935	95	97
1925	94	115	1936	93	105
1926	93	118	1937	90	114
1927	91	115	1938	89	95
1928	91	113	1939	89	103
1929	91	119	1940	88	111
1930	91	104	1941	85	130
1931	92	88			

[1] U. S. Department of Agriculture, Crops and Markets, January 1941, p. 5, and July 1942, p. 149.

[2] Industrial workers are here limited to those in manufacturing, mining, and steam railroad transportation. For sources and methods of computation, see Monthly Labor Review, September 1940, p. 536.

The variability of industrial employment is in striking contrast to the relative stability of farming (table 7). The employment of industrial workers has risen and fallen to such an extreme degree as to counteract in large part the advantages of the comparatively stable real wage of workers who keep their jobs in periods of depression.

Farm Wages and the Wartime Supply of Farm Labor

One of the causes of the comparatively low levels of farm wages has been the instability of farm prices and of the incomes of farm operators. A major object of the parity program was the remedying of this instability, but the benefits to hired farm workers were indirect and dependent on the ability of the workers to take advantage of improved farm conditions for obtaining higher wages and better living conditions. Hired workers who depend primarily on farm employment for their living were unable to obtain increases in wages comparable to the rise, since the parity period, in the incomes of farm operators or the wages of nonfarm workers.

In normal times, hired farm workers who depend primarily on their wages for a living have to meet the competition of a large number of temporary workers mainly dependent on income other than farm wages. Members of farm families and of town and village families near farms obtain farm jobs in slack periods of their usual work and in school vacations, the wages thus received merely supplementing other income. During factory shut-downs and periods of unemployment, many nonfarm wage earners look for jobs on farms.

Farm conditions are relatively unfavorable to organized self-help by hired farm workers and to their joint action in the form of collective bargaining. Laws for protecting workers, such as legislation for safeguarding their right to organize and bargain collectively, minimum-wage laws, unemployment and old-age insurance systems, and even workmen's compensation laws, do not as a rule apply to hired farm workers. In many areas, farmers depend largely on migratory workers, and these workers are often unable to maintain such elementary rights as voting, keeping their children regularly in school, and taking part in normal community life.

Some of the causes of the low levels of farm wages as compared to nonfarm wages and other forms of income may not be subject to control. Other causes, if understood, are remediable and are of great importance because of their immediate bearing on the most effective use of labor resources in meeting the Nation's wartime needs and because of their relation to the continuing problem of maintaining a fair allocation of income to the various groups that contribute to national production.[12]

[12] The major sources of information regarding wartime problems and policies in the field of farm labor are the hearings and reports of the Tolan Committee of the House of Representatives, a select committee investigating labor migration. See also the fall issue, 1942, of Land Policy Review, published by the Bureau of Agricultural Economics of the U. S. Department of Agriculture, an issue devoted to the farm-labor problem, and Backgrounds of the War Farm Labor Problem, prepared by a committee of the Bureau of Agricultural Economics and the Farm Security Administration (Washington, 1942).

LABOR SITUATION IN WESTERN LOGGING CAMPS AND SAWMILLS [1]

Summary

THE inability of the lumber industry to increase production to keep pace with the heavy war demand is generally imputed to a shortage of labor. There has been an accelerating rate of emigration from the forests and sawmills to the armed forces and to war industries. Production in 1942 is expected to be about 17 percent below military and civilian requirements. The labor shortage in the western producing area is the result of many different factors, the principal one being the low wages prevailing in the lumber industry as compared with war industries competing for the same labor supply. Labor turn-over has increased to the unprecedented height of about 15 percent per month.

The Government has taken several steps to combat the labor shortage. These include the following: (1) The War Production Board ordered a minimum workweek of 48 hours in all logging camps and sawmills in the Pacific Northwest. (2) The Office of Price Administration adjusted price ceilings on logs to allow for the increased costs of overtime production in logging camps in the Douglas fir region. (3) The War Manpower Commission introduced an employment-stabilization plan in 12 Western States, requiring any worker desiring to leave the lumber industry to obtain a certificate of separation from the United States Employment Service. The plan was designed to check random job switching among workers. (4) The National War Labor Board created a commission with power to decide all labor disputes in the industry in 5 Western States, in an effort to stablize labor conditions.

Production in the Industry

Wood, traditionally plentiful in the United States, has become a critical material during 1942. The lumber industry is faced with an accelerating demand for wood, coupled with a diminishing rate of production. The heavy demand is generated by the war effort. In addition to the large amount of lumber needed for Army and Navy construction, there is an extremely active demand for lumber for defense housing, farm and factory expansion, and highway and bridge construction. The supplies that are being sent to the armed forces and the Lend-Lease allies require boxing and crating. The substitution of wood for scarce metals in ships, aircraft, and essential civilian articles has opened new markets requiring additional lumber. The War Production Board estimates total lumber requirements at 38 billion board feet for 1942. This compares with the production of 33.1 billion board feet in 1941; 28.9 billion board feet in 1940; and 25.0 billion board feet in 1939.[2]

[1] Study initiated in the Bureau's Occupational Outlook Division by Harold Wool; article prepared by Matilda R. Sugg.

[2] All data on lumber production, orders, and stocks used in this report are from the National Lumber Manufacturers' Association.

Total lumber production in the United States for the first 9 months of 1942 was 23.1 billion board feet, 7.8 percent below production in the corresponding period in 1941. Even if production in the last 3 months of 1942 can be brought up to the 1941 level, which is not likely, total production in 1942 will be less than 31.5 billion board feet, or about 6.5 billion board feet short of requirements. The industry is attempting to meet the increased requirements for lumber by depleting the stocks it had at the beginning of 1942.

This report examines the lumber situation in the western producing area, which accounted for almost one-half of the total lumber production in the United States during 1941.[3] The western producing area is divided by nature into three distinct regions, all producing species of softwood lumber: (1) The Douglas fir region extends from the crest of the Cascade Mountains to the Pacific, covering the western portions of Washington and Oregon. The predominant species of the region is Douglas fir; other species of importance are Sitka spruce, western hemlock, and western red cedar. The Douglas fir region in 1941 furnished 26.7 percent of the total lumber production in the United States. (2) The western pine region covers the eastern portions of Washington and Oregon, all of California except the redwood belt along the coast, all the Mountain States, and a small part of South Dakota. Two-thirds of the output of this region is ponderosa pine; other species of substantial proportions in the area are Idaho white pine, sugar pine, larch, and Douglas fir. The western pine region accounted for 18.3 percent of the total lumber production in 1941. (3) The California redwood region covers a narrow belt extending over 9 counties on the California coast. The principal species is the redwood, but some Douglas fir is produced as well. The output of this region in 1941 comprised 1.6 percent of the United States total.

Total production of lumber in the Douglas fir region was 8.8 billion board feet in 1941; 7.4 billion board feet in 1940; 6.8 billion board feet in 1939. Production has climbed steadily since the low point of the depression—3.1 billion board feet in 1932. Even under the impetus of war, however, production has not reached the 1929 peak of 10.1 billion board feet. The Douglas fir region produced 2.5 percent more lumber in the first 9 months of 1942 than in the same months of 1941 (table 1). By making inroads into stocks, the shipments of lumber increased 8.6 percent above those of 1941. The unbalanced supply-demand situation is indicated by the fact that the relation of unfilled orders to stocks increased steadily, until at the end of September unfilled orders were about twice as large as stocks The explanation lies in the tremendous importance of Douglas fir as construction and aircraft material, pontoon lumber, ship decking, and plywood, and also of Sitka spruce and hemlock as aircraft material.

Although the situation is not so serious as in the Douglas fir region, a similar unbalanced supply-demand relationship exists in the western pine and California redwood regions. Production during the first 9 months of 1942 was slightly below that of the corresponding months of 1941 in the western pine region and was only 2.5 percent above the

[3] According to the Census of Manufactures, the average monthly employment in 1939 in logging and sawmill establishments in the area was 100,215 wage earners, or 34.8 percent of the total number of wage earners in the industry in the United States. Logging includes establishments engaged primarily in the production of logs, bolts, and timber products such as hewn crossties, poles, posts, hewn mine timbers, wheel and handle stock, and excelsior stock. Sawmills include establishments primarily engaged in producing rough lumber, shingles, lath, veneer, and cooperage stocks.

1941 level in the California redwood region. In both sections unfilled orders have been increasing steadily in relation to stocks on hand.

Thus, the production of lumber in 1942 did not keep pace with the increased demand occasioned by the war. Yet present plant capacity is generally considered sufficient to produce as much as 40 billion board feet per year, and there are sufficient accessible timber stands from which to cut this much or more. The factors limiting production are (1) unfavorable weather, (2) inability to replace equipment, particularly tires, and (3) a shortage of labor.

In the fall and winter of 1941–42, the entire Northwest had bad weather which hindered forest operations to such an extent that the production of logs was seriously impaired. Log inventories in the spring of 1942 were at the lowest point in 5 years.

The majority of the logs in the western producing area are hauled from the forests to the mills by tractors and trucks. Operators have been unable to replace and repair worn-out equipment. Production has been handicapped by a shortage of trucks, tractors, and tires, and also of saws and cables. However, an optimistic note regarding this problem was sounded recently by Arthur Upson, chief of the Lumber and Lumber Products Branch of the War Production Board as follows:

> Up to a few months back I think the Lumber and Lumber Products Branch was not as liberal as it should have been in recommending adequate preference ratings for the needed equipment, repair parts, and operating supplies for the industry. I believe this situation has been corrected and that ratings are being granted in all cases where essentiality is shown.[4]

TABLE 1.—*Lumber Production,*[1] *Shipments, and Relation of Unfilled Orders to Stocks in the Western Producing Area, 1941 and 1942, by Regions*

[In million board feet]

Year and quarter	Douglas fir region			Western pine region			California redwood region		
	Production	Shipments	Relation of unfilled orders to stocks, at end of quarter	Production	Shipments	Relation of unfilled orders to stocks, at end of quarter	Production	Shipments	Relation of unfilled orders to stocks, at end of quarter
1941			*Percent*			*Percent*			*Percent*
First quarter	2,141	2,116	84.3	883	1,212	31.5	113	122	19.9
Second quarter	2,147	2,301	97.1	1,677	1,562	39.4	129	142	26.8
Third quarter	2,286	2,326	85.1	2,048	1,853	27.0	151	151	19.0
Fourth quarter	2,236	2,128	85.2	1,451	1,500	24.5	129	117	17.1
1942									
First quarter	2,034	2,097	95.9	900	1,287	35.4	122	133	31.9
Second quarter	2,353	2,655	141.1	1,634	1,675	51.4	139	165	31.6
Third quarter	2,351	2,572	199.0	2,013	1,847	38.6	142	179	49.0

[1] Includes all lumber cut in the three regions.

General Labor Situation

The major factor limiting the production of lumber is the shortage of labor. There has been a continuous drain of both skilled and unskilled labor away from the forests and mills by the Selective

[4] Address delivered on September 25, 1942, before forty-fifth annual convention of the National Hardwood Lumber Association, Chicago, Ill.

Service Act, by enlistment in the armed forces, and by the attraction of higher-paid jobs in shipbuilding, aircraft, and construction. The emigration of experienced workers has not only reduced employment, but has also resulted in a substantial decrease in productivity. The labor shortage is most severe in the forests, where the logging operations have been so affected that there has been an inadequate supply of logs for the sawmills. In the sawmills the labor shortage has resulted in an inability to process even the restricted supply of logs.

In the Douglas fir region, the shortage of labor became apparent at the beginning of the active spring season. Employment during the first 4 months of 1942 was above the level reached during the corresponding months of 1941. However, instead of the expected seasonal increase, the index of employment declined each month from June through September 1942 (table 2).

TABLE 2.—*Indexes of Employment and Pay Rolls in Logging and Sawmill Establishments in the Douglas Fir Region and the Western Pine Region*

[Average 1935–39=100]

Year and month	Douglas fir region		Western pine region	
	Employment	Pay rolls	Employment	Pay rolls
Annual average index:				
1939	100.7	108.6	104.8	113.2
1940	107.6	120.7	112.6	123.2
1941	116.9	149.9	116.9	145.4
Monthly average index:				
1941—January	109.0	130.0	95.4	107.9
February	111.3	140.6	95.4	107.0
March	114.8	142.6	99.9	112.5
April	118.2	150.4	111.0	128.7
May	113.9	134.6	121.0	145.7
June	115.6	144.4	125.5	164.9
July	121.9	156.0	130.9	162.1
August	122.7	173.8	133.1	180.4
September	122.1	165.7	132.3	176.7
October	121.4	169.8	130.4	176.1
November	117.1	146.7	119.6	148.7
December	115.2	144.1	108.2	134.4
1942—January	115.5	147.3	97.1	122.7
February	117.1	159.9	97.7	132.2
March	117.2	163.7	101.7	135.7
April	117.9	167.9	111.7	152.0
May	114.6	172.4	120.2	164.9
June	113.1	183.4	124.9	190.9
July [1]	111.5	175.0	129.7	197.6
August [1]	110.3	183.1	132.4	215.0
September [1]	108.5	181.2	126.6	203.5

[1] Subject to revision.

Employment in the western pine region was maintained at a fairly high level during 1942. The small reduction in the output of lumber in the region (table 1) was the result of declining efficiency because of a high labor turn-over and the utilization of inexperienced recruits rather than because of a decrease in the number of employees.

Employment indexes for the California redwood region are not available. Although the labor supply in this region was adequate to maintain production at the 1941 level during the first half of 1942, the logging camps and sawmills experienced a considerable loss of skilled workers during the summer. As a result, production of lumber declined in August and September.

Relative Wage Level in Lumber Industry

The war industries in the Pacific coast area, to which a large percentage of lumber workers have gone, not only have a higher basic hourly rate of pay than the lumber industry, but also work longer hours, paying time and a half over 40 hours a week and double time for work on Sundays and holidays. Furthermore, the evening shift is paid a differential of 10 percent and the night shift one of 15 percent. The real difference in wages, then, is most clearly seen in weekly wages. During July average weekly earnings in the sawmills and logging industry were $38.83 in the Douglas fir region. This compares with the following average weekly earnings in shipbuilding and aircraft:

Shipbuilding:	
California	$54.91
Oregon	55.61
Washington	55.32
Aircraft: California	44.92

In an effort to compete with the war industries, the lumber industry has raised wages to the highest level in the history of the industry. The indexes of employment and pay rolls (table 2) show that pay rolls have increased substantially in relation to employment. The weekly average wage of $38.83 in July 1942 shows about a 25-percent increase above wages prevailing in 1941 and roughly a 40-percent increase over those of 1940. Further wage increases by the lumber industry were limited by the price ceilings on logs and lumber. The wage raises were largely ineffective, however, in holding the labor force against the attraction of war industries. Apart from the wage question, the shipyards and aircraft plants appeal to the workers because of the steadiness of the work as compared with the seasonal employment in the lumber industry.

Labor Turn-Over Rates

DOUGLAS FIR REGION

The net change in employment as shown by the employment indexes actually conceals the real labor problem. The most alarming aspect of the labor shortage is revealed by the labor turn-over rates. An examination of table 3, showing labor turn-over rates in logging camps and sawmills in the Douglas fir region, furnishes striking evidence of the complexity of the situation.

Quits.—In July 1942, more than 15 percent of the workers in the Douglas fir region voluntarily left their jobs in the sawmills and forests. The principal reason for this was undoubtedly the differences in wages between the lumber industry and other industries in the area. It is estimated that 50 percent of the men leaving the industry found employment in war industries.[5]

Discharges.—It is significant that the discharge rates shown in table 3 are also higher in 1942 than in 1941. It is obvious that employers would make every effort to use all available manpower. The fact that the discharge rate shows a rising trend is evidence that many of the inexperienced workers who tried to work in the lumber industry were unable to perform the exacting tasks required. It

[5] From address by Arthur Upson, chief of the Lumber and Lumber Products Branch of the War Production Board, at Chicago, Ill., September 25, 1942.

perhaps also indicates an indifference to the job on the part of the workers who know that other jobs are easily available.

TABLE 3.—*Monthly Labor Turn-Over Rates (per 100 Workers) in Sawmills and Logging Camps in the Douglas Fir Region, January 1941 to August 1942*

Year and month	Quits	Discharges	Lay-offs	Miscellaneous [1]	Total separations	Rehirings	New hirings	Total accessions
1941								
January	1.89	0.17	2.06	0.22	4.34	2.53	2.29	4.82
February	1.96	.24	1.74	.37	4.32	1.49	2.77	4.25
March	2.76	.23	1.12	.43	4.54	1.44	4.31	5.74
April	2.87	.19	.89	.28	4.23	1.92	4.20	6.12
May	1.92	.15	1.31	.19	3.57	.45	4.11	4.55
June	2.56	.22	.80	.20	3.78	3.79	4.50	8.29
July	3.70	.45	1.38	.33	5.86	1.87	5.40	7.27
August	4.12	.33	1.13	.41	5.98	1.08	5.48	6.56
September	4.95	.34	1.73	.49	7.51	1.14	6.59	7.73
October	3.74	.49	1.99	.50	6.72	1.24	5.21	6.45
November	2.05	.45	2.95	.24	5.70	.71	2.71	3.42
December	3.90	.27	4.64	.80	9.61	1.17	4.35	5.52
1942								
January	4.50	.38	1.21	1.15	7.24	6.66	6.88	13.53
February	6.51	.43	1.81	1.29	10.04	1.87	7.12	8.99
March	10.14	.44	.66	1.67	12.91	2.63	8.80	11.42
April	12.63	.41	2.06	1.56	16.67	1.93	12.23	14.16
May	13.67	.41	1.75	1.52	17.35	1.65	12.83	14.48
June	11.63	.48	.75	1.62	14.48	1.30	13.60	14.90
July	15.03	.57	.80	1.98	18.38	2.05	12.36	14.41
August	13.90	.33	.64	2.38	17.26	1.81	12.37	14.18

[1] Includes military separations.

Lay-offs.—The lay-off rates are lower in 1942 than in 1941. The pressure of heavy demand has helped to avoid the usual seasonal lay-offs. The lay-offs that did occur were probably in those mills which were forced to suspend operations temporarily because of the shortage of logs. In some cases in the forests, the inability to replace skilled workers resulted in a necessary lay-off of workers. Whatever the reason, any lay-off is likely to result in the permanent loss of workers, and is therefore avoided if possible.

Total separations.—The average total separation rate in the first 8 months of 1942 was 14.29 per 100 workers. The magnitude of the problem is clear when this rate is compared with the monthly average total separation rate in all manufacturing industries of 6.02 for January through August 1942. The highest monthly rate experienced in the Douglas fir region was 18.38, the peak reached in July.

Accessions.—The accession rate in 1942 represents a maximum effort on the part of employers to recruit workers. In 1941, even though the separation rates were already at a high level, accessions were higher throughout the active season. The majority of accessions even then were replacements for lost workers. During 1942 separations have exceeded accessions every month but January and June. The high rehiring rate in January is caused by the reopening of some establishments after a midwinter shut-down, and is complementary to the high lay-off rate in December. It is significant that the majority of the accessions in 1941 and 1942 were new recruits rather than persons rehired. Although there are marked fluctuations in the percentage of new hirings to total accessions, the trend is definitely upward, indicating that fewer and fewer men with experience are available. The usual policy has been to hire new workers through

the unions or at the gate. In past years there has been a reservoir of migratory workers in Washington and Oregon upon which the lumber industry depended for a large proportion of the extra workers needed during the busy season. Reports from both States in 1942 indicate that this source of supply has disappeared.

The most serious difficulties were faced in replacing forest workers in the Douglas fir region. The timber in this region is large, ranging up to diameters of 15 feet and heights of 200 feet. The felling of these trees is dangerous. Certain key occupations in the woods require a high degree of skill which can be attained only after years of experience. Workers with experience in other forests where the trees are smaller cannot easily transfer their skill to the larger trees because of the difference in methods. In order to obtain labor, employers have relaxed their hiring specifications as to age and physical fitness until almost any man, even with a slight physical defect, is accepted.

The sawmills are hiring women in some of the lighter occupations. However, as most of the work in the sawmill is heavy work, requiring great strength, the hiring of women is practicable only to a limited degree. The exact extent of the use of women is not known, but reports [6] from the region indicate that more and more women are being utilized.

WESTERN PINE AND CALIFORNIA REDWOOD REGIONS

Labor turn-over rates for the Western pine and California redwood regions are shown together in table 4. Clearly, the heart of the problem is again the extremely high quit rate. Although wage rates have been increased in an effort to compete with the war industries,[7] total separations reached a peak of almost 16 percent in August, representing the loss of a large segment of the experienced labor force. Accessions exceeded separations from February through July.

TABLE 4.—*Monthly Labor Turn-Over Rates (per 100 Workers) in Sawmills and Logging Camps in Western Pine and California Redwood Regions, January 1941–August 1942*

Year and month	Quits	Discharges	Lay-offs	Miscellaneous [1]	Total separations	Rehirings	New hirings	Total accessions
1941								
January	0.94	0.14	5.16	0.22	6.41	1.94	1.23	3.18
February	1.08	.15	3.62	.43	5.29	3.08	1.94	5.02
March	1.86	.16	3.00	.48	5.50	4.99	3.66	8.65
April	2.38	.23	1.25	.24	4.10	3.94	7.02	10.96
May	2.93	.18	.79	.32	4.23	2.47	4.93	7.40
June	3.10	.44	1.09	.18	4.82	1.73	7.03	8.77
July	4.20	.59	.83	.31	6.02	1.20	7.79	8.99
August	4.77	.34	.90	.49	6.51	1.08	5.68	6.76
September	6.01	.41	2.94	.33	9.68	1.10	6.61	7.70
October	4.45	.37	4.31	.37	9.50	.98	4.77	5.75
November	2.50	.80	5.74	.32	9.36	1.41	2.62	4.03
December	2.47	.38	6.61	1.07	10.54	.92	2.29	3.20
1942								
January	2.85	.21	4.21	.89	8.16	3.24	4.81	8.04
February	4.29	.27	1.76	1.07	7.39	2.47	5.20	7.66
March	5.31	.29	2.20	1.14	8.94	2.81	7.93	10.75
April	9.84	.51	.97	1.09	12.41	3.02	11.59	14.61
May	10.17	.48	1.24	.81	12.71	1.97	12.29	14.26
June	9.39	.54	1.24	1.05	12.21	1.86	14.32	15.98
July	11.58	.72	.34	1.58	14.22	2.01	12.45	14.46
August	13.00	.63	.62	1.71	15.96	1.32	13.62	14.95

[1] Includes military separations.

[6] American Lumberman, Chicago, September 5, 1942, p. 57.

[7] Average weekly wages in the western pine region increased from $30.63 in July 1941 to $36.92 in July 1942.

Government Action

In September 1942, the Government, recognizing the stringency of the labor shortage in the lumber industry, took various steps designed to combat this shortage. The first such action was taken by the Office of Price Administration with regard to the west coast logging industry. Price ceiling on logs had been in effect since the issuance of Maximum Price Regulation No. 161 on June 20, 1942. Labor cost is a large percentage of the cost of producing logs. Because of this fact, logging-camp operators, even though aware of the desirability of increasing hours worked in the forests, maintained that under the price ceilings then in effect they could not afford to pay penalty overtime rates, as required by the Fair Labor Standards Act, for work over 40 hours.[8] Accordingly, the Price Administrator on September 4th, ordered two important revisions in the price regulations governing the industry: (1) An overtime addition system was established which provided additions to the maximum price of all species of logs in the Douglas fir region, by individual firms operating 48 hours or more. (2) An upward adjustment was ordered in the maximum price of hemlock, white fir, and noble fir logs; and maximum prices were set on new aircraft grades of hemlock and noble fir logs.

The overtime additions allowed by the order were fixed high enough to allow for all the increased costs caused by overtime production. It was expected that the order would encourage maximum utilization of the available labor, and would therefore result in a more steady supply of logs to the sawmills. The sawmill operators had maintained that a sufficient supply of logs would eliminate temporary shut-downs resulting from the log shortage and would therefore justify the higher prices. By October 23, 151 logging firms had qualified as overtime producers and as a result were permitted by the Office of Price Administration to add to their maximum prices.[9]

The chairman of the War Production Board, on September 12, 1942, ordered the establishment of a 48-hour week in all logging camps and sawmills of the Pacific Northwest. The 48-hour week had already been in effect in some establishments of the industry on a voluntary basis. This action of the War Production Board made the increased workweek compulsory for all logging camps, and for all sawmills when they had a sufficient supply of logs. Enforcement of the order was entrusted to the Western Log and Lumber Administrator at Portland, Oreg. The 48-hour week requires payment of time and a half for 8 hours, since the Fair Labor Standards Act allows only 40 hours a week at straight pay.

On September 8, the Chairman of the War Manpower Commission, put into effect an employment stabilization plan in the 12 Western States of Washington, Oregon, California, Idaho, Montana, Nevada, Utah, Wyoming, Colorado, Arizona, New Mexico, and Texas. The plan applies to both the logging and lumbering industry and the nonferrous-metals industry. Designed to check the loss of workers to other industries, the plan requires that any worker wishing to leave either of these industries to work in another must first obtain a certificate of separation from the United States Employment

[8] Hours worked per week in the Douglas fir region averaged 35.1 in 1939, 35.3 in 1940, 36.3 in 1941, and 39.6 in August 1942.

[9] Office of Price Administration. Press releases T-156, October 5; 879, October 6; 934, October 14; 953, October 19; and 982, October 23, 1942.

Service. The certificates will be issued only under circumstances which are considered by a designated representative of the Employment Service as sufficient grounds for separation. Employers in the area may not hire workers from either of the designated industries unless the workers have obtained certificates of separation. Employers in the critical industries are directed to refrain from separating any worker, except in cases of gross misconduct, without a similar approval by the Employment Service. "Such approval shall be granted only when continued employment of the worker in his present job will no longer contribute to the war production program." [10]

Either employers or workers may appeal adverse decisions before the Area War Manpower Committee. The order specifically states that "nothing contained in this plan shall change, modify or restrict any collective agreement existing between the bargaining agency of the employees and their employers."

The National War Labor Board on September 17, created a National War Labor Board West Coast Lumber Commission, having jurisdiction over the lumber and lumber-products industry in Oregon, Washington, California, Montana, and Idaho. The Commission is given the power to decide all labor disputes in the industry in this area, and to take whatever action is deemed necessary to "effectuate a stabilization of labor conditions, secure industrial harmony and assure maximum production of lumber and lumber products." [11]

Employment Outlook

Lumber demand is expected to remain at a high level in 1943, in spite of an anticipated curtailment in construction. Expanding military activity will continue to call for a large supply of lumber for construction, crating and boxing, and such uses as aircraft and shipbuilding. In contrast to the situation last year, stocks are insufficient to meet other than the most essential needs. Although measures have been taken to maintain the working force and increase hours, it seems probable that labor will still be a serious limiting factor in meeting 1943 requirements.

[10] War Manpower Commission. Employment Stabilization in Nonferrous Metals and Lumbering Activities, Washington, September 7, 1942.
[11] National War Labor Board. Press release B-202, September 17, 1942.

MANPOWER-CONTROL POLICIES IN GREAT BRITAIN

THE progress being made in mobilizing the population of Great Britain for war work was shown in a statement issued by the British Minister of Labor and National Service on September 23, 1942, placing the number of persons "engaged in full-time work for the nation in one capacity or another" at 23,500,000, out of a population of 33,250,000 between the ages of 14 and 65. In addition, millions were working as volunteers. There were fewer than 3,000,000—including the sick, crippled, and aged—who were not engaged in the war effort.

Now that mobilization of manpower is approaching its limit the importance of raising labor productivity becomes increasingly urgent. It is not going to be possible to raise individual output by lengthening the workweek. British workers have been working 60 to 70 hours weekly, and efforts have been made to curb excessive hours. The average workweek at present is stated to be 56 hours, including overtime, for great numbers of war workers.

One possible means of increasing production lies in the reduction of absenteeism and the Ministry is conducting a campaign for such a reduction. It has been estimated that of the large body of workers under the essential-work orders, 10 percent are absent daily. Two-thirds of this number are said to be absent through sickness or accidents [1] and only 2 percent are "voluntary" absentees. This includes the large number of woman workers who stay out from work occasionally because of domestic responsibilities (sickness of a member of the family, care of children, domestic shopping, etc., or are absent because of fatigue, long hours of work, or the long journeys (perhaps in the blackout) to and from home.

In the main, improved working conditions, planning, and management are being looked to for the necessary increases in productivity. Important steps have been taken through the Welfare Department of the Ministry of Labor to improve conditions inside and outside factories. Transferred workers are given their transportation fares and "settling-in" allowances, housing is being supplied, nurseries for children of working mothers are being provided, and canteens are obligatory in most factories. It is hoped that causes of uneasiness and complaint will be removed through the efforts of the regional boards of the Ministry of Production, now that they have added powers. Within factories the new labor-management committees are improving production by drawing attention to working problems and by making practical suggestions for greater efficiency.

Great Britain's experience in the control of manpower since the outbreak of war is described in a recent publication of the British Information Services, summarized below.[2]

[1] Editor's note: This ratio is so high as to suggest that any excuse is seized upon to reduce the burden of the long workweek.

[2] British Information Service. Control of Manpower in Britain. New York, 1942 (Information Division I. D. 313).

Government Powers

All manpower questions—in relation to the armed forces and civil defense as well as in industry—are dealt with by the Ministry of Labor and National Service. The power to call men for military duty was originally accorded to the Ministry by the National Service (Armed Forces) Act of 1939, the scope of which was extended by two laws of 1941. In addition, wide powers to deal with manpower for industry were granted under the Emergency Powers (Defense) Acts. Under these laws, defense regulations were issued in broad terms as orders in council, and their terms are carried out under detailed orders issued by various Ministers. The scope of the first Emergency Powers (Defense) Act of 1939 was greatly extended in 1940, by a second act giving the Government power to make regulations "requiring persons to place themselves, their services and their property at the disposal of His Majesty." Defense regulation 58A issued under that law gave the Minister of Labor power to direct any person of any age in the United Kingdom to perform any service for which he is fitted at the "rate for the job." These powers provide the sanctions behind the large-scale transference of labor into and within the vital war industries.

PROVISIONS RELATING TO MEN

Men from 18 to 41 years of age became liable for military service under the terms of the 1939 legislation. This liability of men was extended to service in a civil defense force (i. e., police war reserve, national fire service, and civil defense reserve) in April 1941. Defense regulations were issued empowering the Minister of Labor to direct men into civil defense forces, either whole or part time. By December 1941 men aged 19 to 40 had been summoned to register at the local offices of the Ministry of Labor. The military age was then raised to 51 by law, and it was announced that boys aged 18½ to 19 years would be called up. Recently the age for call-up was reduced to 18.

In addition to the men up to age 40 who have been called into the military services, those aged 41 to 50 have been registered, interviewed, and directed (where necessary) into appropriate industrial work, pending possible military service. Strict control is exercised over men of all ages, who are working or desire to work, in most industries, through the Restriction on Engagement Order of May 1940 requiring that in most war industries employment shall take place only through the public employment exchanges, and through the Essential Work Order of 1941 preventing workers of all ages in "essential" industries from leaving their jobs or being dismissed without permission of the local representative of the Ministry of Labor.

PROVISIONS RELATING TO WOMEN

Women are also subject to call for service in the uniformed forces under the December 1941 legislation. Liability extends to those between 18 and 51 years of age, except married women or those with their own or adopted children living with them. A royal proclamation made women aged 20 to 30 liable for service under the law, but only those of 20 to 24 have been called. If no preference is expressed, women are normally enrolled in the Women's Military Services.

They may elect civil defense work or "such specified jobs in industry as the Minister of Labor may from time to time direct." The great majority of women in the military forces are volunteers, of a wide variety of ages, and both married and single.

All women aged 18 to 45 were obliged to register with local employment offices under the terms of the Registration for Employment Order of March 15, 1941. With the exception of women already engaged in vital war work, and those who have children under 14 living with them, they are interviewed, advised as to appropriate work, and urged to accept this work. The official has the power (used sparingly) to "direct" a woman to take the job. If she is classified as "mobile," she may be transferred to another area. Women, like men, are controlled under the essential-work orders, and those aged 18 to 30 are subject to the Employment of Women (Control of Employment) Order of January 1942, which makes it an offense for women aged 18 to 30 years (with some exceptions) to be engaged for employment except through the employment exchanges or an approved agency.

PROVISIONS RELATING TO YOUTHS

All boys and girls of 16 and 17, inclusive, have been registered and are being interviewed under arrangements made by the Youth Service Committee of the Education Authorities, who are thus able to establish direct contact with them. Those not fully occupied and undertaking some form of training or national service, either as members of some voluntary organization or of a youth center or of a junior service organization, are encouraged to join some organization. In particular, fit boys are given every encouragement to undertake some form of preservice training. Among the organizations giving service or training are boys' and girls' clubs, young farmers' clubs, guides, scouts or brigades, youth centers, and the junior service organizations, such as the Air Training Corps, the Sea and Army Cadets, and the Home Guard.

ALIENS

Registration was required of all persons of Belgian, Czech, French, Netherland, Norwegian, Polish, Austrian, German, and Italian nationality under the International Labor Force Registration Order of 1941. The great majority were found to be usefully occupied, but special employment exchanges were established to assist aliens, including refugees of enemy-alien nationality, to obtain useful war work. They are also eligible for military service in their own forces, such as the Fighting French, or in the British forces. Women also may volunteer.

Manpower Statistics

The population of Great Britain, not including Northern Ireland, is approximately 46,750,000. Of the 33,250,000 persons between 14 and 65 years of age, 16,000,000 are men and 17,250,000 women. Registrants among men between these ages totaled 9,790,000 on September 19, 1942, and among women, 8,400,000 on October 3, 1942. No official figures have been published showing in detail how many of the 23,500,000 persons employed full-time are men and how many are

women. All the available evidence shows, however, that almost all the 16,000,000 men in this age group must be included. Unemployment has practically vanished. Of boys 14 to 17 years old, 77 percent are employed in some form of national work. Of the 17,250,000 women between 14 and 65, about 6,750,000 were stated to be working full time (excluding those engaged in private domestic service) in October 1942, and at least 250,000 were working part time. As this age group includes over 10,000,000 women who are married or occupied in necessary household duties, and as there are in Britain over 9,000,000 children under 14 who must be looked after, mainly by women, it is clear that a great inroad has already been made into the full mobilization of womanpower.

"No country in the history of the world," the Minister of Labor said on May 21, 1942, "has mobilized its manpower to such a point as we have had to do in this war * * *. The great test between now and the end of the war is whether industry can show its utmost capacity in the utilization of this great force."

Call-Up for Military Service

At the outbreak of the war it was essential to maintain outside the military forces (1) men engaged in essential industrial work or other work essential to the life of the community, and (2) a reservoir of men with special skills who would be needed for the war effort at home when the war program got well under way. Men aged 19 to 40 were called for military service as quickly as possible, married or single, except those of certain ages specified in a schedule of reserved occupations, regulating deferment on occupational grounds. The system was gradually modified, and at present no man is deferred unless irreplaceable in an essential war job or in some other service essential to the life of the community. Until recently only those aged 18½ to 40, inclusive, had been drafted, except doctors and dentists in the 41–45 age group. Registrants for military duty may declare conscientious objection to service and be heard before a local tribunal, with the possibility of an appeal to an appellate tribunal. Up to August 31, 1942, a total of 64,137 persons (less than 0.9 percent) had registered as objectors.

In cases of extreme hardship, liability for service in the forces may be temporarily postponed by a Military Service (Hardship) Committee, if the application is made within 2 days after medical examination. Almost the only exemptions are in cases in which it is absolutely essential for a man to adjust his business affairs. An appeal against a decision of a committee is permissible if the decision is not unanimous. Extensions may be granted if application is made at least 14 days before the expiration of the original or last certificate.

Apprentices in essential occupations for which the age of reservation was 25 or under in December 1941 are receiving deferment until they complete their apprenticeship or reach 20, whichever is earlier. Deferment for college students varies with the course taken. For example, medical and dental students are reserved, subject to periodical certificates of satisfactory progress, and subject also to undertaking part-time national service if required.

With regard to womanpower, it is proposed at present to draft only single women (and widows without children) aged 20 to 30. These

total 1,620,000. Thus, far, the 20–24 age group has been called. Women have the same right as men with regard to conscientious objection and they cannot be compelled to undertake duty with lethal weapons. They may appeal for deferment on grounds of hardship, which may include domestic responsibilities such as the care of parents or children. Each appeal board includes at least one woman. Employers may appeal for the deferment of key women as well as of key men. There is no schedule of reserved occupations for women, but they are not called from certain kinds of work such as farming, the practice of medicine, and teaching, unless they are ancillary workers.

Men having special qualifications have been released from the armed forces for industrial work in rare cases. By February 1942, 58,000 men had been released from the Army for "work of national importance." In March 1942 the scarcity of coal miners led to the withdrawal of some 7,000 men from the Army and over 1,000 from the Royal Air Force. Despite the great scarcity of skilled workers it is the present intention of the Government not to release more men from the forces but to insure that the best use is made of these men in the forces.

Training for Industry

It has been found that about six-sevenths of the new entrants to industry require some training, though it may be short. The Ministry of Labor has determined that about four-fifths of the training required must be provided by industry itself. Employers must train to fill immediate and future requirements, and those having better facilities are encouraged to train for others who cannot meet their own needs. The labor-supply inspectors of the Ministry of Labor make every effort to insure that firms provide sufficient training facilities. Although they have no compulsory powers, they can exert pressure by threatening to refuse to allocate extra labor needed. The Ministry of Labor has instituted an auxiliary training scheme, with the regular employees of the firms conducting 8-week training courses in the plant, at instructors' wages, paid partly by the Government.

Government training is given in two forms: 8-week courses in about 150 technical colleges and similar establishments; and courses of 3–5 months in Government training centers, of which there were 39 in operation at the beginning of 1941, currently reduced to 24. Upgrading courses are given at Government training centers and technical colleges to train operators whom employers cannot promote. To encourage use of these facilities, a basic wage is paid to trainees by the Government, and assurance is given that the trained worker will be returned to the original employer. Young men and women of good educational standard are given Government scholarships to cover engineering training at universities; and special scholarships for intensive 6-month courses in mechanical and electrical engineering are given to suitable candidates of any age. Courses in foremanship are also given.

Men registered for military service are accepted for industrial training only if they have physical defects that bar them from military duty. Otherwise, all suitable persons, including women and aliens, are accepted. Trainees 19 years of age and over are paid weekly wages, during training, on a scale not far below the ordinary level of earnings. Young men (16 to 18) and girls of 18 are accepted for training away from home, and girls under 18 for training in their home area. They

all receive adequate allowances for maintenance, lodging, travel, etc. There is no compulsion to accept training, as unwilling trainees make bad pupils. Wide publicity is given to the training opportunitities, however.

Allocation of Labor

Since the beginning of the war, the work of the Ministry of Labor has been greatly expanded. The Employment Department has been replaced by a National Service Department, apportioning the needs of the military forces, civil defense, and industry; a Military Recruiting Department handling all calling-up; and a Training Department. These departments and the Statistical Department and International Labor Branch are all under the Director General of Manpower. Regional offices under the Regional Controller are maintained in the 11 defense regions. The 44 district manpower boards which deal with military deferment also consider district labor-supply questions. Attached to these boards are 400 labor-supply inspectors with engineering qualifications, who are recruited from among the production engineers and trade-union officials. The inspectors deal with questions involving the efficient use of the working force, investigate alleged infringements of orders, and advise the boards on the release of individual men for the military services. There is in addition a Headquarters Technical Inspectorate.

The Ministry of Aircraft Production, the Ministry of Supply, and the Admiralty have some labor functions, but the work is now coordinated through the Ministry of Labor.

To a large extent, priorities in the allocation of labor are determined by the Priority of Production Direction, issued originally by the Ministry of Supply. Local employment exchanges are, however, instructed not to regard the inclusion of a product having a high priority under the Production Direction as giving a firm making that product an exclusive right to available labor. Representatives of supply ministries meet fortnightly to work out special priorities and those that are agreed upon are constantly reviewed. Both the Select Committee on National Expenditure and the Citrine Committee concluded that priority instructions from headquarters were not by themselves a satisfactory basis for local action, and therefore the regional boards have now been put under full-time controllers with adequate powers to relate central planning to local conditions.

MACHINERY FOR DISTRIBUTION OF LABOR

The essential-work orders and the orders restricting engagement and transfer insure that there are very few alterations in the distribution of labor except through the Ministry of Labor machinery. In addition to the orders already mentioned, the Restriction on Transfer Order for the building and civil-engineering industries provides that contractors may not transfer workers from one place to another in their employment without permission of a national service officer (the representative of the Ministry of Labor), and must give notice of termination of employment. Employees leaving employment are required to call at an employment exchange.

However, the most important measure is the Essential Work Order, under which the permission of a national service officer must be

obtained before a worker is dismissed or leaves his job; minimum weekly wages must be paid to the worker who presents himself for work, whether work is available or not; and the conditions of employment must reach a high standard. This order insures to the Minister of Labor full power to direct the employment of millions of workers. Application of the basic "General Provisions" Essential Work Order is made by individual orders affecting specific industries. Special essential work orders have been applied to the engineering industry, shipbuilding, ship repairing, the merchant navy, building, coal mining, docks, railways, and agriculture in Scotland. Even though a whole plant is not scheduled, individual workers can be brought under the order. The Minister of Labor stated on May 21, 1942, that there were already 6,500,000 workers covered by essential-work orders, and that the number would probably soon rise to 8,000,000, because he was being "pressed by trade-unions and employers to bring more and more under the Order." By September 1942, the figure had risen to 7,300,000.

ALLOCATION OF MEN

Men with special types of skill—such as engineers, electricians, shipbuilders and miners—have been registered at different times and, even when found to be doing useful war work, have been "directed" to return to their former occupation if the demand for their service is urgent. An outstanding case is that of miners, who have been "directed" to give up jobs which were often higher paid, to go back to the mines. This naturally led to some difficulties, and even unrest. Basic mining wages had to be increased.

Registration with the Ministry of Labor has been extended to all types of experts, including university teachers, scientists, and technicians. Engineers, scientists, architects, etc., are dealt with by a central scientific and technical branch. Other persons with professional or administrative experience are placed through 30 provincial offices.

ALLOCATION OF WOMEN

The greatest reserve of potential war workers consists of women: 8,400,000 of whom (aged 18 to 45) have now been registered. Apart from the 20–24 age group called for military service, all are divided, after registration, into 3 categories for the purpose of interview: (1) Those who appear to be available for war work, who are called for immediate interview; (2) those engaged on some important work from which they are not to be moved for the time being, whose interview is deferred; and (3) those engaged on vital war work or those with children of their own living with them, who are not called for interview. About 50,000 women are interviewed weekly and classified as either "mobile" or "immobile," according to domestic responsibilities. As no woman is considered "mobile" if her husband is in the armed forces or working in industry away from home, or if she has domestic responsibilities, the proportion of "mobile" women is small. Women may appeal their classification to the women's panel. "Immobile" women are classified as available for full-time work, available for part-time work, or not available for work. Appropriate work is found for those who are available. Once registered, young and "mobile" women can be withdrawn from their present jobs after consultation with the representatives of both sides of industry.

CONCENTRATION OF INDUSTRY

The Board of Trade's plan of April 1941 for the concentration of all manufacture of civilian goods in specified "nucleus" firms resulted in the release of 250,000 workers by July 1942, and the release of 30,000 more was expected.

Enforcement of Controls

A "direction" to take a new job or remain in the same job may be given by a national service officer after the interview following registration, or under the orders controlling engagement, or under the essential work orders. Appeals are permissible.

Directions of a disciplinary nature are provided for under the essential work orders. If a worker is dismissed for "serious misconduct" the usual week's notice before dismissal is not required. If, on appeal, the case is decided against the employer, he may be directed to reinstate the worker and pay salary for the suspension period. The worker who "fails to comply with any lawful and reasonable order given to him (including any orders as to the working of day or night work and of a reasonable amount of overtime)" may be reported to the national service officer by the employer. If the officer decides, on the basis of the evidence, to direct the worker to do the job, the worker may appeal the decision. There is likewise opportunity for the worker to state his case when reported absent or persistently late. The success of the enforcement system is confirmed in figures given recently by the Ministry of Labor. In August 1942 applications to leave their jobs were made by 1.7 percent of the workers in scheduled undertakings. Employers sought permission to discharge 0.6 percent. The majority of the requests were granted. Appeals from decisions represented 0.5 percent. Prosecutions for absenteeism and tardiness totaled 245.

Penalties are limited for failing to comply with a direction, but in the case of a corporation the fine is unlimited in amount. For offenses after conviction, the worker or employer is liable to a further fine of £5 a day for every day that the offense continues.

On May 21, 1942, the Minister of Labor said that the complaints and punishments were infinitesimal in proportion to the vast job that has been achieved. In every case of prosecution, the objective of the Ministry was not to punish workers or management, but to devise ways of persuading all to continue working at full pressure. Some "final sanctions" must remain applicable to these as to other parts of the defense regulations. Prosecutions for absenteeism in the period, March 1941–September 1942, affected 1 worker in 30,000 and imprisonment 1 in 185,000, according to the Ministry of Labor.

REGULATIONS OF STABILIZATION DIRECTOR CONTROLLING WAGE ADJUSTMENTS

THE Director of Economic Stabilization has issued comprehensive regulations for administrative control of all salary and wage adjustments. These regulations were issued to put into effect the so-called Wage-Price Act and the executive order of the President providing for control of wages and prices.[1] Jurisdiction over wages is vested in the National War Labor Board, while control of salary adjustments is divided between the Board and the Bureau of Internal Revenue.

Under the regulations coverage is practically unlimited through broad definitions of "wages" and "salary." The only groups specifically excluded are those covered in the exemption of employers who employ not more than 8 persons. Both agencies possess adequate power to enforce the observance of their orders through direct as well as indirect penalties. Thus, both the employers and employees who are parties to an unauthorized increase are subject to fines up to $1,000 or imprisonment of 1 year, or both.

Control of Wages and Salaries

Under the regulations issued by the Director of Economic Stabilization, the National War Labor Board has jurisdiction over all wage adjustments and salary payments not exceeding $5,000 a year, provided the employee is represented by a duly recognized or certified labor organization or is not employed in a bona fide executive, administrative, or professional capacity. The Bureau of Internal Revenue has authority over all salaries exceeding $5,000 a year, and over those below $5,000 which are not within the jurisdiction of the War Labor Board.

The terms "wages" and "salary" are broadly defined and include almost every means of compensation. Thus, the term "wages" is defined as all forms of direct or indirect compensation which is computed on an hourly or daily basis, a piece-work basis, or other comparable basis, for personal services, including bonuses, additional compensations, gifts, commissions, loans, fees, and any other remuneration in any form or medium (but excluding insurance and pension benefits in a reasonable amount). The term "salary" is defined as all forms of direct and indirect compensation computed on a weekly, monthly, or annual basis for personal services of an employee. It also includes bonuses and other forms of additional compensation, with the same exceptions as in the definition of wages.

Rules and regulations.—The War Labor Board is authorized to make such rulings and issue such orders or regulations as it deems necessary to enforce and otherwise carry out the provisions of the regulations.

[1] For provisions of these see Monthly Labor Review, November 1942 (p. 921).

Similarly, the Commissioner of Internal Revenue is authorized to prescribe regulations with the approval of the Secretary of the Treasury, and to make necessary rulings.

Enforcement of regulations.—If any wage or salary is adjusted in violation of the regulations or orders of the War Labor Board or the Bureau of Internal Revenue, the entire amount, and not merely the increase, will be disregarded in computing costs or expenses under any Federal law or regulation, including the tax laws, the Emergency Price Control Act, and Federal laws relating to contracts. In addition, both the employer and the employee who are parties to an unauthorized increase are subject to the penalties provided by the Wage-Price Act—fines of not more than $1,000 or imprisonment for not more than one year, or both, for each offense.

Finality of determination.—The regulations provide that determinations of the War Labor Board and the Bureau of Internal Revenue are final and not reviewable in any civil proceeding.

Wage and Salary Provisions

Salary increases.—In the case of a salary rate of $5,000 or less per year existing on October 27, 1942, and in the case of a salary rate of more than $5,000 existing on October 3, 1942, no increase can be made by an employer except as provided in regulations, rulings, or orders promulgated under the authority of the regulations. Except as provided by the regulations any increase made after these respective dates shall be considered as a violation of the act and the regulations, from the date of the payment, if such increase is made prior to the approval of the Board or the Commissioner of Internal Revenue, as the case may be.

Salary decreases.—In the case of a salary rate existing on October 3, 1942, under which an employee is paid an annual salary of less than $5,000 for any particular work, no decrease shall be made by the employer below the highest salary rate paid for such work between January 1, 1942, and September 15, 1942, except to correct gross inequities or to aid in the effective prosecution of the war. Any decrease in the salary rate must be approved by the War Labor Board or the Commissioner, as the case may be. However, if the salary rate is in excess of $5,000 per year, the employer may reduce the salary, provided the new salary is not less than $5,000.

Permissible pay adjustments.—The regulations permit increases in individual salaries or wages, without approval, under any of the following conditions:

(1) Individual promotions or reclassifications.
(2) Individual merit increases within established salary rate ranges.
(3) Operation of an established plan of salary increases based on length of service.
(4) Increased productivity under incentive plans.
(5) Operation of a trainee system.
(6) Such other reasons or circumstances as may be prescribed in orders, rulings, or regulations, promulgated under the authority of the regulations.

It is provided, however, that no such increases shall result in any substantial increase of the level of costs or furnish the basis either to increase price ceilings of the commodity or service involved or to resist otherwise justifiable reductions in such price ceilings.

Salary ceiling.—Under the regulations, no employee may be paid a salary which yields him more than $25,000 a year after deduction of

Federal income taxes. Additional payments are allowed to take care of customary charitable contributions and insurance premiums and fixed obligations in force before October 3, as well as past income taxes, provided it is shown (1) that the employee has no other source of income which can be utilized, and (2) that he is unable to meet the payments without disposing of assets at a substantial loss, involving undue hardship. If the individual's salary between January 1, 1942, and October 27, 1942, amounted to more than $25,000 after deducting this year's taxes and more than his total salary for 1941, he is to receive no further salary payments until January 1, 1943, without the approval of the Bureau of Internal Revenue.

Exemptions.—The provisions of the regulations regarding wage and salary adjustments do not apply to employers of 8 employees or less, nor to State or Federal employees whose salaries are fixed by statute.

WAGE-STABILIZATION POLICY OF NATIONAL WAR LABOR BOARD

SHORTLY after the Director of Economic Stabilization issued regulations giving the War Labor Board control over wages and salaries paid at the rate of not more than $5,000 a year, the Board issued a statement of its wage-stabilization policy, and outlined the procedure to be followed in passing upon requests for approval of voluntary wage and salary increases. The Board declared that there are four factors which it will consider in passing upon proposed adjustments: (1) Correction of maladjustments, (2) correction of inequalities and gross inequities, (3) elimination of substandards of living, and (4) effective prosecution of the war.

Under the procedure outlined by the Board, requests for wage or salary increases will first be made to the nearest field office of the Wage and Hour Division of the Department of Labor. The representatives of this division are authorized to make informal rulings as to whether proposed adjustments may be made without the approval of the Board. These rulings are considered authoritative acts of the Board and remain in effect unless reversed by a regional director of the Board. If the representative of the Wage and Hour Division determines that the increase requires approval, he assists the employer in filling in the proper forms for transmittal to a regional director of the Board. The determination as to whether an increase should be granted is made by a regional director of the War Labor Board, who may, however, refer the question to a tripartite panel or to the Board itself.

The Board also issued four new general orders, and amendments to two orders previously issued. The orders further defined and limited the Board's jurisdiction, while the amendments made previous orders controlling hiring rates of wages also applicable to salaries. The first of the two orders so amended had directed that increases approved prior to October 3 be placed in effect.

Regional Offices of Board

Ten regional offices of the National War Labor Board were established, each headed by a full-time representative of the Board known

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Ten regional offices of the National War Labor Board were established, each headed by a full-time representative of the Board known

as a regional director. An advisory board, composed of representatives of labor, employers, and the public, was also established. In addition, tripartite panels composed of representatives of labor, employers, and the public, were to be appointed for each regional office.

The primary responsibility of the regional director and the tripartite panels is the handling of voluntary applications for wage adjustments with the utmost expedition consistent with the proper carrying out of the Board's wage policies. In the handling of all wage cases, the regional directors and the tripartite panels are charged with the obligation of executing the Board's wage policies, and have no policy-making powers.

The offices of the Wage and Hour Division of the Department of Labor are available to the Board as information centers and as headquarters for the filling out of application forms, for the use of regional directors and panels, in voluntary wage-adjustment cases. In such capacities the offices of the Wage and Hour Division act as the Board's agents.

Procedure for Approval of Wage Adjustments

Preliminary inquiries about jurisdiction.—An employer or a union directly concerned in a proposed wage adjustment, if uncertain whether under the applicable regulations and orders the proposed adjustment can be made without Board approval, may ask the nearest office of the Wage and Hour Division in the region for an informal ruling. This office then issues a written ruling, as agent of the National War Labor Board, and sends copies to the person or persons making the inquiry and to the regional director of the Board for his information.

If the ruling is that the proposed wage adjustment may be made without the approval of the Board, the ruling is deemed to be an authoritative act of the Board. If the Board's regional director reverses it, he is required to give notice promptly to the persons concerned that the adjustment requires approval. If in the meantime the employer has made the adjustment, it may be continued in effect for a period of 10 days following the issuance of the Regional Director's ruling, within which period the employer may file with the office of the Wage and Hour Division an application for approval of the adjustment. If such an application is filed, the adjustment may be further continued in effect until it is finally disapproved. Such disapproval takes effect only from the date of the issuance of the order of disapproval.

In case the Wage-Hour office rules that the proposed adjustment cannot properly be made without the approval of the War Labor Board, the ruling is deemed to be an authoritative act of the Board. The person or persons who made the inquiry may seek from the Board's regional director a reversal of the ruling. His ruling on the question is final.

Applications for approval of wage adjustments.—Applications are filed with the nearest office of the Wage and Hour Division in the region, as the agent of the National War Labor Board for that purpose. The Board has power to reopen the question after it is decided by the regional director or the panel. Persons dissatisfied with the

ruling of the regional director may within 10 days file with the regional director a petition for a review, and that officer is required to submit the question to a tripartite panel. A ruling of the panel approving the application is final, except that the Board may intervene on its own motion to change the ruling. In case of disapproval of the application, a member of the panel may also refer the question to the Board for review.

Wage adjustments accompanied by price increases.—In the event that an application to make an increase in wages or salaries is accompanied by a request for change in a price ceiling, the procedure is more complicated. The applicant is required to state fully on a special form the relationship between the proposed wage increase and the employer's price situation, and what the effect would be on the employer's business if wages were increased without price relief. If the application for an increase is approved by a regional director or a panel, the decision becomes effective only upon approval by the Board and in some cases by the Director of Economic Stabilization.

Wage-Stabilization Policy of Board

In its statement of policy, the War Labor Board declared that general wage increases in straight-time rates which bring wage levels more than 15 percent above the level existing on January 1, 1941, will not be granted as relief for maladjustments. Increases up to that figure are permissible. Regional directors of the Board are authorized to approve requests for increases to remove maladjustments in industries which have been specifically designated by the Board.

In spite of the 15-percent rule, increases to correct unusual and unreasonable wage inequalities which amount to manifest injustices are permissible. However, long-established differentials which have become normal in industry will not be disturbed. The Board recognized its authority to approve adjustments to eliminate substandards, but stated that each case should be considered on its individual merits.

In addition to these adjustments, the Board in its statement declared that it will make other adjustments necessary to aid in the successful prosecution of the war. The Board stated it would not, however, approve increases for the purpose of directing the flow of manpower, although it will cooperate with other Government agencies in this connection if asked by such agencies to do so.

General Orders of the Board

Four additional general orders were issued by the Board, further limiting and defining its jurisdiction and explaining the types of bonuses, fees, commissions, or gifts, which may be continued in the future without approval. At the same time, it issued amendments to General Orders Nos. 1 and 6, making their terms applicable to salaries as well as wages. General Order No. 1 had directed that all increases approved by the Board prior to October 3 should be put into effect, while General Order No. 6 had virtually frozen hiring rates by barring transfers at rates higher than the rate previously paid for the job, unless approved by the Board. If there is no established rate for the job, the rate fixed cannot exceed that prevailing in the area for similar work.

General Order No. 7 gave blanket approval to all wage and salary adjustments made by employers to comply with the terms of State minimum-wage laws and orders, while General Order No. 8 exempted from the regulations any wages or salaries within the Board's jurisdiction which are paid in any territory or possession except Alaska. General Order No. 9 repeated the language of the section of the wage-salary regulations which defines the jurisdiction of the Board over adjustments in salaries totaling not in excess of $5,000 a year. This order also set forth individual salary increases which do not require approval (see page 1143 of this issue).

The last order, No. 10, provided that a bonus, fee, gift, commission or other form of compensation customarily paid an employee can be continued in the future without approval by the Board, with two qualifications: (1) If it is a fixed amount, the amount paid during the current bonus year must not exceed the total paid the employee for like work during the preceding bonus year, and (2) if it is computed on a percentage, incentive, or similar basis, the rate and method of computation may not be changed during the current bonus year unless by such change it yields no more than during the preceding year.

MILITARY-SERVICE AND WAR-JOB CLAUSES IN UNION AGREEMENTS [1]

THE Selective Training and Service Act of 1940, as amended, and the Army Reserve and Retired Personnel Service Law provide certain legal rights regarding reemployment after discharge from military service and participation in insurance benefits. Clauses in union agreements pertaining to military service are designed to serve any or all of the following purposes:

(1) Provide additional benefits and guaranties beyond those included in the law.

(2) Clarify and interpret the general provisions in the law in relation to conditions which exist or are likely to exist in the particular plant.

(3) Incorporate the legal guaranties within the framework of collective bargaining, thus permitting unions to rely upon their economic strength as a means of enforcement in addition to individual recourse to legal suit.

This article discusses the various kinds of military-service clauses in agreements now in effect which were negotiated after our entry into war. Although similar clauses in the agreements negotiated before Pearl Harbor were not unlike those currently negotiated, some of them reflected the assumption that only a limited number of employees would be drafted and that their absence would be for a 1-year training period only. Thus some of them provided for the continuance of pay or part pay during "the period of required training."

Present agreements are not likely to have such generous provisions, and the guaranties and benefits which are provided are related to "the period of military service" plus a specified number of days after

[1] Prepared in the Bureau's Industrial Relations Division by Harry Cannon.

discharge. For the most part, current agreements merely incorporate the seniority and reemployment provisions established by law. Some, however, provide more generous guaranties of reemployment, as well as additional benefits such as separation allowances.

Workers Included Under Reemployment Guaranties

TEMPORARY EMPLOYEES

The reemployment guaranties and other benefits of the Selective Service Act cover all workers in private industry [2] except temporary employees. As a practical matter, large segments of the Nation's working population will have no legal claims to jobs after discharge from military service. Temporary workers include not only the young men who entered industry shortly before being drafted and thus had never obtained permanent employment status, but also the greater number—those who had transferred from their regular jobs to new jobs shortly before induction.

Also excluded from reemployment guaranties are the thousands of workers engaged in those occupations which necessarily require shifting from one employer to another—as, for instance, workers in the building trades and in maritime service. For such workers there will be the practical difficulty of assigning responsibility for reemployment to any one employer.

In reality, of course, there is no absolute guaranty of reemployment into private industry for any men returning from military duty, since the law necessarily makes restoration of jobs contingent upon whether "the employer's circumstances have so changed as to make it impossible or unreasonable to do so." Fundamentally, the reemployment guaranties provided by law or through employer-union contractual arrangement can only determine the priority of employment between individuals or groups of individuals in relation to jobs available. It would doubtless be held "unreasonable" to insist that an employer restore all his permanent employees if, when they returned from military service, his business was depressed to such an extent that to do so would involve an actual financial loss.

The Selective Service Act, as well as union agreements, seek to give maximum assurance that a returned soldier who left a permanent job has an equal chance with workers who remained at work, and a prior claim over those who were taken on during his absence in military service. The limitation in the Selective Service Act that the reinstatement provisions apply only to positions "other than temporary" is not generally included in union agreements. Failure to include this limitation in agreements does not signify that temporary employees are guaranteed job protection since, under most union agreements, temporary employees have no seniority standing which might entitle them to preference in rehiring.

[2] In addition to employees in private industry, the law provides for the reinstatement to their jobs of persons in the employ of the United States Government, its territories or possessions, or the District of Columbia. With respect to employees of any State or its political subdivisions, no guaranty of reemployment is established but it is declared to be the sense of Congress that such persons should be restored to their former positions. Various city and State government agencies, either through the enactment of ordinances or through rulings of the civil service commission, have taken steps to protect the jobs of departing employees.

VOLUNTEERS AND DRAFTEES

The seniority and reemployment provisions of the present law include "Any person who, subsequent to May 1, 1940 * * * shall have entered upon active military or naval service in the land or naval forces of the United States * * *." Most agreements include those who volunteer as well as those drafted under the law, but others cover only those in the latter group, presumably on the consideration that a voluntary resignation terminates the employment relationship. To the extent that the agreements do not include within the seniority and reemployment guaranties the classes of workers covered by the Selective Service Act and other laws, the wider coverage of the law takes precedence. However, if the agreement provides for benefits not called for by law, such as separation allowances, the more limited coverage of the agreement will apply as respects these additional benefits.

Effect of Modification or Termination of Agreement

An important general consideration connected with military-service provisions in union agreements concerns the effect of modification or termination of an agreement upon the job rights of returning employees. A later agreement, for example, may provide for the accumulation of seniority rather than its mere retention. Agreements may be modified to allow either a longer or shorter period during which to apply for reinstatement, or an additional provision may be included to give special consideration to workers disabled during military service. Modifications such as these raise the question of which provisions will be effective when employees return to their jobs after military service. Are the rights of returning employees to be determined under the provisions in effect at the time of departure or under those in effect at the time of discharge from military service?

The purpose of the Selective Service Act as a whole would seem to militate against the permissibility of action by remaining employees to decrease the rights which those in service had when they left. Where a liberalizing modification is not specifically limited to future selectees, those already in service would probably be entitled to share in the new benefits under the conventional principles governing the interpretation of contracts.

A similar problem concerns the effect which termination or lapse of an agreement during an employee's absence in military service has on obligations assumed by an employer over and above those required by law. Ordinarily, termination or lapse of an agreement suspends all future obligations of an employer. However, military-service obligations assumed by an employer under an agreement probably remain unaffected by termination with respect to employees already in the armed forces at the time the agreement terminates.

Most agreements do not specifically resolve the conflicting job and benefit rights under the situations mentioned above. A few agreements anticipate modifications and provide specifically for the determination of job rights in accordance with the agreement existing at the time of reinstatement. On the other hand no agreements specifically limit reemployment rights on the basis of the agreement in effect at the time of departure.

Maintenance v. Accrual of Seniority

The job rights of many returned soldiers will be determined by whether or not their seniority accrued during their period of military service. Obviously, workers joining the armed forces under a military-service provision which limits seniority to that acquired at the time of departure are disadvantageously placed with respect to workers who remain employed and continue to accrue seniority. Also if military service is prolonged, the already acquired seniority of a person in military service may be less than that of workers hired for permanent positions after his departure for service. The Selective Service Act is somewhat vague as to whether seniority is to be frozen as of the time of departure or is to accumulate during the period of military service. Under the law, seniority rights of employees are protected by the requirement that persons discharged from military service be reemployed "without loss of seniority" and "to a position of like seniority, status and pay." The position of the Selective Service System is that this provision was intended to conserve to employees any right or benefit based on seniority which would have accrued to them had they remained in their civilian positions during the period they are in military service. The courts will doubtless be influenced by the construction adopted by the Selective Service System, but no cases have as yet been presented to the courts for final interpretation.

Many agreements incorporate the same terminology as is employed in the Selective Service and Training Act. Other ambiguous terms are also used, such as, for example, "full seniority rights." The actual benefits which will be derived from such vague clauses will depend, in the last analysis, on the interpretation given by the courts to the term "without loss of seniority." Should the courts decide that accumulation of seniority was intended, agreements contemplating lesser benefits will, of course, be invalidated. On the other hand, should the courts conclude that Congress intended to conserve the seniority rights possessed at the time of departure, then the intentions of the parties will be controlling.

Some union agreements are more specific than the Selective Service Act. A moderate proportion of the existing agreements, for example, specifically provide that seniority shall accumulate during the employee's absence. Under some agreements accrual of seniority is established by the requirement that employees discharged from military service are to return to their position on the seniority list. In order to maintain their relative seniority standing, the seniority of those in service must keep pace with the seniority of those still employed.

In some cases, accrual of seniority is made to depend on such factors as length of service at the time of departure or the manner in which the employee entered the armed forces. Some agreements, for example, permit the accumulation of seniority only if employees entering the armed forces have acquired a minimum of 6 months' service with the company. Other agreements distinguish (for seniority purposes) between draftees and volunteers, permitting seniority to accrue for the former during the entire absence while limiting accrual to a period of a year for the latter class of employees.

Only a small proportion of union agreements specifically prohibit accumulation of seniority. Whether or not such a prohibition can

be made effective will depend upon the final interpretation of the Selective Service Act.

Reemployment After Military Service

Closely related to seniority is the problem of reinstatement after discharge from service. Under the Selective Service Act employers are required to restore persons released from service to their former positions or to positions of "like seniority, status and pay." There are, however, important limitations and exceptions. Persons seeking reinstatement are required to be "still qualified to perform the duties of such position" and to make "application for reemployment within 40 days" after discharge. The duty to reemploy ceases if "the employer's circumstances have so changed as to make it impossible or unreasonable" for the reinstatement to be made. Although varying in some details, most military-service provisions in union agreements follow the requirements and limitations established by law.

The mandate in agreements that persons returning from service be restored their former jobs raises practical problems of hiring, lay-offs, and discharge. In the vast majority of circumstances these matters will be determined on the basis of the seniority rules fixed by the agreement. The inclusion of a specific rehiring commitment in the agreements serves, however, to implement the seniority provisions by definitely opening up the question of who, among returning and present employees of equal seniority, is entitled to a particular job.

In few cases is it specifically provided that substitute employees shall be discharged to make room for returning employees. Most generally, however, such a provision is considered unnecessary, since substitute employees are usually hired on a temporary basis and will automatically be displaced under the seniority rules applying to lay-offs and rehiring. A few agreements remove all possibility of misunderstanding on this issue by specifically classifying substitute workers as temporary and calling for their discharge, if necessary, in order to make room for all returning employees.

Few of the agreements embody the stipulation of the Selective Service Act that rehired employees are not to be discharged without cause within 1 year after restoration. The necessity for such protection against evasion of the intent of the law is obviated by the inclusion in nearly all union agreements of special procedures governing the discharge of permanent employees.

JOB AND PAY RIGHTS

On the specific matter of reemployment, most agreements follow the language of the Selective Service Act which provides for the return of employees "to their former positions or to positions of like seniority and pay." This provision protects a returning employee from reinstatement to a lower-ranking job. It may also be interpreted as guaranteeing him any promotions which would have been due him, by virtue of seniority, had he continued to work.

Although the question of money wages is not specifically dealt with in the law, the net result of the reinstatement provision is to insure returning employees against receiving a lower rate than that prevailing for similar work at the time of return. Some agreements

are more specific than the language of the act in guaranteeing selectees against reinstatement to lower-ranking jobs. Thus, some agreements require restoration "at the prevailing rate of pay existing at the time of return"; and in a few cases reinstatement is to be effected "with all wage increases and any other benefits that may have been granted during the employees's absence."

PHYSICAL FITNESS OF RETURNED EMPLOYEES

Reemployment provisions in agreements, relating to physical fitness and ability to perform the duties of the job, add but little to the requirements of the law. Employees, under most agreements, must be physically fit or "able to perform" the duties of the position. Remaining undetermined are such questions as "Who is to be the judge of fitness?" "What standards are to be used in determining ability to perform?" or "What further disposition is to be made of persons disqualified for their former jobs?"

In plants where controversies over ability to perform have regularly been settled through collective bargaining, standardized procedures have usually been developed and can be applied to reinstatement problems after discharge from military service. Similarly, many agreements contain clauses providing for special consideration for handicapped employees. These clauses may be invoked to cover the cases of returning employees who are physically unfit to perform their previous jobs.

Some agreements go farther than the law, by providing for special consideration to returned soldiers who cannot meet the physical standards for their former jobs. In some cases, for example, employers have made special commitments to place employees at any work they are able to do. In others, persons unable to return to work immediately after discharge, because of some physical disability, are granted an additional leave of absence for recovery purposes. In a few instances special consideration is extended by permitting individuals physically disqualified for their former jobs to displace employees with less seniority on a plant-wide basis, although normally seniority is applied on a departmental basis.

OTHER REQUIREMENTS FOR REINSTATEMENT

Nearly all agreements follow the law in making the right to reemployment contingent upon the presentation of a certificate of satisfactory discharge. In a few agreements, however, there is no specific requirement that returning employees must present an honorable discharge as a basis for rehiring. These clauses raise the question as to whether a benefit beyond that established by law is intended, so that even dishonorably discharged employees would be entitled to reemployment. On the other hand, the omission may merely indicate that such a contingency was not contemplated by either party when the agreement was negotiated.

Most agreements, in conformity with the legal requirement, establish a maximum period of 40 days after discharge, during which persons seeking reinstatement may apply for employment. Where the agreements provide for a shorter period, they are, of course, legally inoperative. In a number of agreements, a period in excess of

40 days is allowed, varying from 45 days to 6 months. Since discharges from military duties take place within the continental limits of the United States and the policy is to release persons in the armed forces as close as is possible to their former places of employment, a period of 40 days would appear ample. Some unions have sought periods longer than 40 days as a measure of precaution against unforeseen contingencies—for example, to provide sufficient time for persons recovering from minor disabilities.

Separation Allowances

Some employers and unions have negotiated agreements which provide separation payments for drafted and enlisted employees. The majority of agreements, however, contain no such provisions. In most cases, this has been due to the fact that employers, uncertain as to the number of their employees facing military service, have been reluctant to assume contractual liabilities and have preferred, in some instances, to provide separation payments and other allowances through unilateral statements of policy.

The usual allowance, where such exists, provides either for the payment of a flat sum on departure or for the continuance of the employee's salary for a limited period. Some allowances are graduated according to length of service. Some agreements provide that during a limited period of military service employees will be paid the difference between their military pay and their regular pay, or a fixed proportion of their previous average earnings. A more frequent form of separation allowance is a provision whereby employees who have not received their vacations during the year are entitled to their vacation pay on departure.

Insurance and Benefit Plans

The Selective Service Act provides that employees restored to service "shall be entitled to participate in insurance or other benefits offered by the employer pursuant to established rules and practices relating to employees on furlough or leave of absence in effect with the employer at the time such person was inducted into such forces." This provision places individuals entering the armed forces on a par with employees on a leave-of-absence status in respect to insurance and other benefits.

After the passage of the Selective Service Act and while the country was at peace, group life-insurance plans were generally continued in effect for employees on military leave on the same basis as during leave of absence for other reasons. However, since most insurance policies stipulated that they were subject to revision or discontinuance if the United States entered the war, few companies now have insurance programs in effect for employees in military service. The discontinuance of group life insurance does not debar employees in service from securing insurance protection, in view of the passage of the National Life Insurance Act of 1940 [3] which provides insurance at reasonable rates to men in the service. Some companies have adopted the policy of paying the premiums on Government insurance for their drafted employees, but there are no

[3] 54 Stat. 1008.

examples of this practice at present in union agreements. In a few agreements signed after the country's entry into the war, the employer has agreed to assume the whole burden of group life-insurance premiums during an individual's entire period of absence. In view of the high insurance rates on policies covering men in service, where such are still being issued, it is unlikely that such payments will be assumed, except to a very limited extent.

Provisions for Dependents of Workers Killed or Disabled

Few agreements contain provisions which establish special benefits for the dependents of employees killed or disabled in war service. Most of such provisions are in agreements in the newspaper industry, containing dismissal-compensation clauses. The majority of these have always provided that if an employee dies while in the service of the company his heirs shall receive the separation pay to which the employee would have been entitled, and current agreements include the same provision for death during military service. Another "dependents" clause provides that members of the family of an employee killed in service are given preference in filling the job left vacant.

War Jobs

The conversion and expansion of industry for war production necessarily involves the transfer of many workers from nonwar occupations to jobs in other plants engaged in war work. Such departures from regular jobs give rise to important problems relating to seniority and rehiring. Under normal conditions, workers transferring to other jobs forfeit whatever seniority rights they have accumulated with their original employers. Unless, therefore, a new job offers improved working conditions, workers having extensive seniority rights are reluctant to shift employment.

In order to facilitate and encourage shifts from nonwar to war plants, special seniority-transfer programs under the sponsorship of the Federal Government were established in several key war industries—automobile, rubber, and farm implements—during the latter part of 1941 and early in 1942. The salient features of these programs were protection of a transferred employee's seniority rights with his former employer and the right of the original employer to recall transferred employees after a short notice period.

In the automobile industry the program was designed to facilitate the transfer of trained workers to the plants which were early converted to war work. However, it was found that, as the entire industry was being converted, the provision for recall actually retarded maximum war production, since many workers were being called back by their former employers for jobs requiring less skill. Also employers were reluctant to hire, train, and upgrade workers who were subject to recall from their former employers on short notice. The transfer program was, therefore, amended to permit an employee who has received training in a war job to remain with his new employer while he continues to accumulate seniority in his original position, unless the employer with whom he has seniority offers employment

in an occupation which requires the skill which his additional training has given him.

Only a few agreements protect an employee's seniority when he enters Government civilian service or takes a job in a war industry.[4] The infrequency of war-job clauses in union agreements is probably associated with the present voluntary nature of the war-job transfer program and the competition for workers that exists among many of the war industries. Employers who find it difficult to develop an adequate labor force are naturally unwilling to provide workers with a guaranty of job security which would serve as an incentive for transferring to other employers. Should the war-job transfer program be made compulsory, it is not unlikely that unions will seek the same type of seniority safeguards as have been negotiated with respect to military service. Most of the present agreements with clauses relating to transfers to private industry mention the compulsory-transfer feature. Seniority is protected only if workers are "drafted into industry" or "conscripted by the Government for defense work."

TERMINATION OF EMPLOYMENT OF AXIS NATIONALS IN BRAZIL, 1942[5]

IMMEDIATE suspension of employees who are subjects of nations with which Brazil has severed relations, or with which she is at war, was authorized by a decree-law published on September 1, 1942, and effective upon that date.

Contracts of employment of such aliens may be rescinded by the employer only upon authorization by the Minister of Labor, Industry, and Commerce, but suspension of employees may take place at once.

The application for authorization to dismiss such an employee must indicate name, residence, State, age, occupation, nationality, years of service, and the same data concerning the dependents of such employee.

Dismissal compensation, at the rate of a half month's pay for each year of service up to 10, including as a year any period greater than 6 months, is provided for. This indemnity is to be based upon a salary not greater than 2 contos of reis[6] per month[7] and is to be paid in equal monthly allotments corresponding to the number of years of service upon which the dismissal compensation is based. Payment ceases upon proof that the dismissed employee has performed acts hindering production or detrimental to the national defense or if his services are utilized by the Government for pay. The practice of any act contrary to the effective execution of services and production or contrary to the national safety is considered a grave offense for the purposes of the legislation in force.

[4] Except for agreements in the automobile, rubber and farm implements industries, many of which incorporated the special seniority-transfer programs referred to above.

[5] Translation of decree-law taken from report of John F. Simmons, counselor, United States Embassy at Rio de Janeiro.

[6] Conto (1,000,000 reis) = $60.58 in United States currency in July 1942.

[7] Under the general dismissal-compensation legislation (law No. 62 of June 5, 1935), dismissal compensation amounts to 1 month's pay for each year of service or fraction thereof after the first year, to be based on the highest pay received for work in the employing enterprise. Persons who have been employed in the same commercial or industrial establishment for 10 or more years, but whose tenure of employment is not safeguarded by membership in a pension fund, may not be dismissed except for force majeure or serious offense duly proved, or for disobedience or insubordination.

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Existing legal provisions giving tenure rights to employees are not applicable to employment contracts covered by the present decree-law.

Each employee dismissed in accordance with the present legislation must be replaced by a Brazilian employee; exceptions must be justified before the appropriate administrative authority and are subject to appeal to the Minister of Labor, Industry, and Commerce. Disagreements pertaining to employment, resulting from the application of the present decree-law, are to be determined by the Labor Court.

EFFECTS OF CANADIAN PRICE CEILING

DURING the first year of operation under the Canadian price ceiling, it is officially stated by the Canadian Government, prices have been prevented from increasing very substantially and losses in efficiency and morale have been avoided that would have resulted if workers had struggled for higher wages and the inflationary process had gained momentum. Developments have been outlined in general terms by the Research Section of the Economic Branch of the Wartime Prices and Trade Board, in a survey discussing price ceilings in relation to the broad problems of wartime organization and control, and describing the organization and techniques by which the Wartime Prices and Trade Board has carried out the price-ceiling policy.[1]

Price Ceilings and Wartime Problems

In administering price ceilings the emphasis has shifted from the obvious problems of pricing to the underlying problems of supplying materials and, most important of all, manpower. By freezing prices, which would normally have kept supply and demand in balance, the fundamental problems of shortage, which would otherwise have been distorted by inflation, were brought out clearly. Japan's participation in the war, the overrunning of southeast Asia and the increasing enemy attacks on shipping, resulted in serious curtailment of imports of needed materials, while at the same time demands for goods increased. Therefore, civilian products of the luxury and comfort classes have had to be curtailed in order to release manpower and materials essential to the full prosecution of the war.

During the first 2 years of the war, the Wartime Prices and Trade Board made every effort to maintain adequate supplies of the goods and services which were in demand, although only limited numbers of commodities were dealt with, and often the problems were of a temporary nature. When production of civilian goods began to lag behind demand, owing to the growing need for labor in war production, the system of price ceilings was adopted as part of a broad economic program to insure equitable sharing of the remaining civilian commodities. As manpower shortage developed, the close relation of price control to the supply of both labor and material became increasingly clear; the end of progress toward total war is not reached until the population is on "iron rations."

At the same time that income payments were expanding, labor, materials, and equipment were being diverted from civilian pursuits.

[1] A Year of the Price Ceiling. Ottawa, October 1942. (Mimeographed.)

Monthly war expenditures in the summer of 1942 amounted to $300,000,000 [2] as compared with $200,000,000 a year earlier. These outlays added substantially to income payments, as industrial employment increased by 12 percent and pay rolls by some 25 percent. Farm income, in the period referred to, was running at a rate 20 percent greater than in the same period of 1941.

Inflationary tendencies had become apparent in the summer of 1941. Although there was more income, there were fewer things to buy. The durable-goods industries had been the first to cut the output of civilian goods such as automobiles and radios, refrigerators, and other household appliances. Residential building had been increasingly restricted, largely owing to shortages of materials. Although the civilian industries using metals and rubber were the ones which were most curtailed, numerous other civilian industries were hampered by material shortages and experienced increasing difficulty in getting and keeping an adequate labor force.

In the 7 months from April to November 1941, the cost-of-living index rose 7 percent—or as much as from August 1939 to April 1941. Efforts to siphon off rising incomes through taxation and borrowing were insufficient to remove inflationary pressure. Restrictions were also placed on the installment buying of a wide range of consumer goods. It became clear to the Government in the fall of 1941 that additional fiscal measures "would be too late in effect and not sufficiently specific in application to meet the situation," and it was decided "that direct control should be established promptly over all prices, wages and salaries, and that controls over production and supplies should be extended and made more rigorous." Although the price ceiling has not been easy to implement, the difficulties would have been far greater if the decision had been postponed.

The report under review states that without the price ceiling the cost of living would have advanced very substantially. At the same stage in the last war the rise was about 1¼ percent per month. Without the ceiling, it was stated, there would have been "an increase from last November to August of this year [1942] on the order of 10 percent," that is, about 1 percent monthly. Actually, the increase in the index was 1 percent for the 10-month period as a whole. A 10-percent rise in the index would have added $300,000,000 to $350,000,000 to the food, clothing, fuel, and other bills of Canadian housewives, and pressure would have been exerted to obtain wage increases.

Price-ceiling policy is a significant part of broad national policy, consisting of five main elements: (1) An over-all price ceiling; (2) a wage and salary ceiling; (3) profit and income controls, such as taxation and borrowing; (4) allocation and rationing controls; and (5) manpower controls. Wages and salaries were placed under a ceiling at the same time as prices, as the latter would have been ineffective if wages had been allowed to continue upward. Theoretically, fiscal controls—taxes and borrowing—would have prevented inflation by reducing spendable income of consumers, but in fact, fiscal measures are too slow in application and are limited by problems of incentive and morale. Allocation and rationing controls are the specific implements designed to cope with particular and prospective shortages. Rationing at the manufacturing level has been in operation for some time,

[1] Average exchange rate of Canadian dollar in August 1942=90.9 cents.

whereas consumer rationing did not become necessary until 1942, but is likely to increase. A system of local rationing boards throughout the country assists in applying the rationing plan.

The importance of manpower controls is becoming increasingly important. Men of military age are drafted, the movement of workers from job to job is being controlled, and direct measures are being introduced to increase the labor force for war industries. Until recently the object of curtailment of civilian production was to conserve scarce materials; now the release of manpower is the leading objective.

Price-Ceiling Policies

The Canadian price-ceiling policy has been described as "the boldest and most far-reaching attempt ever made to hold a price level and a price structure." As announced by the Prime Minister on October 18, 1941, ceilings were established at the highest prices prevailing for each individual seller during the basic period, September 15 to October 11, and became effective December 1, 1941. With few exceptions, all goods and commodities are covered, as well as all principal services and rents of both housing accommodations and industrial and commercial properties. Ceilings apply throughout industry and commerce, from the raw material through to the final product.

During the early months of general price control, the main task of the Wartime Prices and Trade Board was to hold firmly to the retail-price ceiling and at the same time carry out the individual price adjustments required to insure an uninterrupted flow of supplies. Minor additions were made to the exemptions from the ceiling. In maintaining the retail-price ceiling it was soon seen that manufacturing costs in a number of industries were rising to a point where the pressure against the ceiling would either force a breach or involve a substantial extension of subsidy payment. A program of economies and simplification in civilian production and distribution was adopted to avoid either condition. Provision was also made for the payment of subsidies on imports of essential consumer supplies. A policy of bulk buying was adopted by the Board to avoid payment of subsidies in a number of instances. At the same time, rationing of sugar, tea, and coffee became necessary. Conservation of scarce materials, such as metals, rubber, and oil, has been one of the Board's chief aims. The increasingly difficult manpower problem, which had reached a critical stage by midsummer, 1942, resulted in a new emphasis in the Board's work. In August 1942, the Board was directed to bring about curtailment of all nonessential civilian production with a view to releasing manpower for war production and for the armed services.

In maintaining price ceilings, the policy of the Board has been to keep retail prices stable and make necessary adjustments below that level. However, retail prices that were definitely out of line were adjusted and allowances made where products have a seasonal price structure. For example, many products used mainly in the spring and summer were not sold in the base period or were sold at levels which did not reflect higher production costs. It was ruled that the 1942 price set for a long list of such goods should take into account the increase in price of goods in general between the spring or summer and the fall of 1941. Before increasing the price, the manufacturer was required to file the proposed selling price, the 1941 maximum price,

and cost sheets for 1942, with the appropriate administrator. Where rents were permitted to be raised, it was because of special conditions.

In determining prices of most farm products, the Board recognized at once that the maximum price could not be based on the selling prices of individual farmers. Such prices were replaced by a market ceiling for the commodity or by a ceiling over the manufactured or processed product. The report here summarized states: "In the case of agricultural products it is particularly important that the price structure be in balance if production is to be geared to the war and civilian requirements for individual commodities." It was necessary to adjust the price structure of milk and dairy products, for example, to assure a more adequate and balanced supply of milk, butter, and concentrated milk and milk products. To avoid any appreciable increase in prices to consumers, the Board in certain cases provided for subsidies, as in the summer, when butter and fluid milk were subsidized with a view to overcoming threatened shortages.

The time lag between rises at wholesale and at retail has come to be called the "squeeze." Prevention of such a "squeeze" in simultaneously establishing a general price ceiling over manufacturing, wholesale, and retail levels, is a major problem when prices are rising and price relationships may be out of line. To the time-lag problem have been added rising costs since the ceiling prices were established. The sharpest rises have occurred mainly among imports, owing to higher shipping rates and rising prices in other countries. More recently, reduced volume of production and the high rate of labor turn-over have contributed. Where feasible, importers, manufacturers and distributors have absorbed the "squeeze." In other cases there has been simplification and conservation, or a shift of responsibility to the Board for appropriate action, such as subsidy, remission of duties, or Government bulk purchasing. Corporate governmental bodies have been established to deal with situations of this kind and to operate in the import and domestic fields.

To avoid an undue extension of the subsidy system, the Board introduced a program of economies and simplification in civilian production and methods of distribution. Price ceilings in themselves were a strong incentive to economy. The economy drive coincided with the necessity of conservation. The shoe industry exemplifies both simplification and standardization, having reduced the number of different styles, sizes, and colors.

When the price ceiling came into effect, the Board pointed out that "the controlling of prices does not insure that goods which are scarce will be fairly distributed with due regard to the needs of the population. * * * This can only be done by some form of rationing." Sugar, already mentioned, was placed under rationing restrictions in January 1942. Although sugar stocks were reasonably satisfactory, it was believed that future receipts would be adversely affected by the need for diverting shipping space to more essential commodities and by intensified submarine activity along the Atlantic Coast. Rationing of tea and coffee became necessary, owing to threats to shipping and the loss to Japan of sources of supply.

Board Organization

As the Wartime Prices and Trade Board is the central authority in the field of price control, it has been necessary to coordinate its controls with those of other Federal and Provincial authorities. Such authorities may make orders touching on maximum or minimum prices only with the concurrence of the Board. Coordination is particularly close between the Wartime Prices and Trade Board and the Wartime Industries Control Board of the Department of Munitions and Supply. The chairman of each body sits as a member of the other, and all actions of the latter affecting prices require the concurrence of the former. To avoid duplication and overlapping, the controllers of the Wartime Industries Control Board were appointed administrators under the Wartime Prices and Trade Board.

Membership in the Wartime Prices and Trade Board was enlarged, when the price ceiling was announced in 1941, to include members of all Government departments closely affected by the policy of price control. A great many administrators were appointed, covering every major industry, and they were given full powers of investigation, revision of maximum prices within the price ceiling, control of civilian supplies (methods and modes of production and distribution), and adjustment of retail-price anomalies under special circumstances. All orders by administrators must be countersigned by the chairman of the Wartime Prices and Trade Board. Rent control is administered locally, by a committee of one—the judge of the county or of the district court, except in Quebec, where the district magistrate officiates.

To facilitate administration, 13 regional and approximately 100 local offices were established. The 13 prices and supply representatives act as agents for both the Wartime Prices and Trade Board and the Wartime Industries Control Board. The regional offices answer inquiries and keep the Board in touch with public opinion.

A consumer branch acts as a clearing house for problems arising out of price-control measures, and to afford consumers direct representation in Board operations. Plans have been announced for organizing 500 local ration boards.

Under the general licensing plan, machinery has been provided for policing prices and securing information necessary for the allocation of supplies in case of shortages. A useful feature is that, through its operations, mailing lists of retailers, wholesalers, and manufacturers have been obtained. Enforcement counsel is allocated to the regional offices to investigate possible violations relating to prices, rentals, rationing, or other Board regulations. General policy and matters of prosecution and license suspension are decided at headquarters in Ottawa. At the Ottawa headquarters, policy matters are organized in four main divisions: (1) Prices, supply; (2) distribution and rationing; (3) industrial; and (4) research.

EQUAL PAY FOR EQUAL WORK IN CANADA[1]

IN OUTLINING the manner of establishing wages of women and boys and of less-experienced men replacing experienced men in war work, the Canadian War Labor Board has in effect laid down the

[1] Canada. Department of Labor. Labor Gazette, September 1942; Wartime Wages Control Order: Explanation of the Order, Ottawa, 1942 (Bull. No. 3).

principle of equal pay for equal work, in a bulletin issued to explain the Wartime Wages Control Order of July 10, 1942 (P. C. 5963, superseding P. C. 8253 [2]). Provisions of the wage-control order continuing basic wage rates at the level of November 15, 1941, apply without differentiation as to the sex or age of an employee. In cases where both men and women are engaged in the same occupation, "the intended application of the provisions of the order is clear." Where both men and women have not been employed heretofore in the same occupational classification, problems as to the application of the order arise, and the Labor Board has therefore indicated the manner in which less-experienced help can be engaged without disturbing the employer's wage structure.

Upon application, a war labor board may authorize the establishment of new occupational classifications with lower rates than those existing previously, if the skill and ability required for the work is of a lower grade than was previously associated with the established classification of the employer and/or where separate classifications are desirable for apprenticeship or learners' schedules. However, the single wage rate or range of wage rates requested must be a fair and reasonable measurement of the relative skills and abilities required in connection with the new and lower-paid classifications.

For purposes of illustration, under the present classification, the range in hourly rates of pay for turret-lathe operators may be 65 to 75 cents. The new classification may be 65 to 75 cents an hour for grade 1; 50 to 64 cents for grade 2; and 40 to 49 cents for grade 3 turret-lathe operators. Grade 1 will represent the operator; grade 2 the learner; and grade 3 the beginner.

Where there is no guaranteed minimum hourly rate, piece rates may be changed only if there is an addition, removal, or alteration of a work element, and then only in direct proportion to the value in time or money of the change involved. Specific approval of such changes is not required, but records must be kept in all cases and made available to inspectors of a war labor board upon request. The same conditions apply with respect to changes in individual or group piece rates and incentive-bonus plans, when the employee is guaranteed a minimum hourly rate. In addition, rates below the established level may be fixed for apprenticeship, learners' schedules, or lower-paid classifications, in respect to the guaranteed-hourly-rate portion of the wage payment (as exemplified in the hourly rates for lathe operators cited above), provided that such new classifications are approved by a war labor board.

CHINESE WARTIME ECONOMY

THE war between Japan and China, which began in 1937, has brought about large-scale dislocation in China, partly as a result of the mass migrations from the occupied Provinces to the interior of the country where, prior to the outbreak of the war, there had been practically no modern industry. China has a predominantly agricultural economy, as about 80 percent of the population is engaged in raising farm products and domestic animals. Because of this fact the Chinese system

[2] See Monthly Labor Review, September 1942 (p. 466).

has been much less affected by the war than an industrialized economy would have been. A discussion of wartime economic developments in the August and September issues of Contemporary China, published by the Chinese News Service, Inc., in New York City, deals with the financial, agricultural, and industrial situation of the country.

At the present time there is a serious inflationary movement under way. Prices of farm products such as rice and wheat, and of industrial products such as cotton and coal, have increased from 10 to 40 times since 1937, while the volume of currency has increased tenfold during the war period. Government efforts to check the inflationary trend have so far been unsuccessful, and owing to the effects of the invasion of the country the regular national revenues of the country have been greatly reduced. However, in spite of these unfavorable trends, it is said that the actual situation is not discouraging as, although farm prices have risen, the volume of agricultural production has also increased. The interior Provinces are now becoming centers of modern industry, and although the industrial output is still small, the outlook for the immediate future is said to be highly encouraging.

All classes in China have suffered privations as a result of the war, but most seriously affected have been the salaried and professional middle classes, whose incomes have not increased in proportion to the increases in the general price level. As a result, the war has wiped out almost the entire middle class and reduced it to the same status as the farmer and the laborer. The situation of the latter classes has relatively improved, on the other hand, as the incomes from farm products and wages have either kept pace with or exceeded the general price increases. Property losses have been great among landlords and industrialists in the occupied areas, and in the interior Provinces the interests of the landlords are likely to be affected by the new land policy of the Government, which aims at making every peasant a free and independent farmer. Also, while the new industrial enterprises in the interior are being promoted, excess profits and other taxes will result in the landlord and the industrialist contributing more and more to the nation's war effort as the war goes on. From these facts it appears that the war has been a leveling process and that the China which will emerge from the war will have a much more democratic society than was previously the case.

Agriculture

Although the fortunes of many of the rich have been lost, and the real incomes of the salaried and professional classes have been greatly reduced, the earnings of farmers (whether tenants, peasants, farmers, or landlords) are slightly better than they were at the outbreak of the war. Prices of farm products have increased more rapidly than prices of nonagricultural commodities, so that the purchasing power of farmers has increased, and as a result many poor farmers have been able to buy the farms they cultivate, pay off debts, or purchase new implements and new varieties of seeds. The index numbers of farm-product prices in March 1942, based on 1937 as 100, ranged in the 15 Provinces of Free China from 714 to 4,439, while the price indexes of nonfarm products used by farmers ranged from 868 to 4,012. In three Provinces the index of farmers' purchasing power was below 100, but in the other Provinces (with the exception of one for which the ratio is not given) it ranged from 103 to 166.

Measures have been taken by the Chinese Government, through the four Government banks, to increase farm production and stabilize rural economy. Agricultural loans were made by these banks in 1941 amounting to 498,555,000 yuan [1] (about $26,500,000), of which nearly 93 percent was for food production and the remainder for irrigation, agricultural extension, land reclamation, and rural handicrafts. During 1942 irrigation loans are to be greatly increased and land bonds will be issued for the purchase of farms which have been assessed at too low a figure by their owners. These farms will be sold to tenant farmers and the purchase price repaid in installments.

The rural cooperative movement which was started before the war had, at the end of 1941, a total of 146,297 organizations and a membership of 7,582,107. Rural cooperative banks have received large loans from the four Government banks. The cooperative banks pay interest of 1 percent per month on these loans and in turn lend the money to the farmers at 1.2 percent a month.

Methods adopted by the Government to increase food production include an increase in the acreage under cultivation, increase in rice production by reducing the acreage of glutenous rice (used mainly for making wine), increased wheat production by winter plowing, use of improved seeds, reclamation of waste land and development of irrigation, disease and insect control, use of better fertilizers, and protection of domestic animals. In 1941 food production increased by nearly 90 million piculs [2] or approximately 5 million tons. The cultivated acreage increased by 45,952,046 mou [3] or about 7½ million acres. A further increase both in production and in the acreage in farm land was expected in 1942.

Industrial Organization

The process of industrialization in China is being hastened by the war, the vast interior Provinces having become a strong industrial base for China's resistance to aggression. Prior to the war, industries were being developed in six areas, all but one of which are now occupied by the enemy. In those areas the industrial developments included iron and steel mills, coal mines, textile mills, oil plants, power plants, and light industries. The National Resources Commission is the principal organization responsible for the progress of industrialization in Free China. A 3-year program, started in three Provinces in 1936 to develop heavy industries, had to be abandoned when the Japanese invaded the Yangtze Valley, but the Commission has established new industrial plants in the interior. In 1942, at the time the report under review was prepared, 108 industrial units had been established, of which 41 were factories, 43 mines, and 24 electrical plants, while the Government had also established a number of arsenals in the interior Provinces. Of the 3,849 private factories before the war, 1,290 were in Shanghai and only 279 were in the interior. With the spread of hostilities along the coast, however, the Industrial and Mining Adjustment Commission assisted about 600 factories to move inland.

[1] Average exchange rate of yuan during portion of 1941 in which quotations were available = 5.31 cents.
[2] 1 picul = 110 pounds.
[3] 1 mou = ⅙ acre.

In this migration to the west more than 120,000 tons of material and equipment and 100,000 skilled workers were moved. At the present time there are several thousand old and new factories in the interior sections of the country, the latest report listing 87 metallurgical plants, 376 units of machine works, 44 electrical plants, 380 chemical works, 273 textile factories, 3 cement plants, 133 alcohol factories, 17 paper mills, 42 oil refineries, 1,629 coal-mining units, and 122 iron-mining units.

Although the National Resources Commission is in charge of industrial planning on a national scale, 14 Provincial development corporations have been created by the various Provincial governments, and many factories have been established by these authorities in recent years. The Commission is now studying a post-war 5-year plan designed to raise the general standard of living of the people and to strengthen national defense.

Domestic and Foreign Trade

Governmental control over the production and consumption of civilian goods and control of imports and exports was not instituted until after the blockade of the coastal Provinces, when the decrease in the amount of civilian goods and the increase in the general price level necessitated such action. A Ministry of Food was formed to regulate the production, the pricing, and the consumption of foodstuffs, and a Commodity Administration was established under the Ministry of Economic Welfare to control the trade in certain daily necessaries. Several monopolies have also been instituted by the Government, and the Foreign Trade Commission has been established to control the nation's imports and exports.

The food problem is one of distribution rather than of production. Increased food prices are due not to scarcity but to the increase in the volume of currency, hoarding and profiteering, transportation difficulties, and the necessity of feeding 5 million soldiers and 50 to 60 million refugees. In the past year the Government collected the land tax in kind instead of in cash, and it is expected that by this means it will obtain from 30 to 35 million piculs of foodstuffs per year. This will solve the army's food problem and will reduce cash expenditures by the Government. Food treasury notes have also been issued for the purchase of surplus foodstuffs from landowners. Under this plan, for every picul of grain purchased by the Ministry of Food, the seller receives 30 percent in cash and the remainder in food treasury notes.

Cotton and coal, which are the most vital daily necessaries, are under the control of the Commodity Administration. It regulates the production of cotton and the manufacture and sale of cotton yarn and cotton cloth, has fixed the price of cotton yarn, and in view of the scarcity of coal for household use in West China, is extending financial and technical assistance to coal producers. Other items under control include vegetable oil and paper.

Government monopolies have been established during the present year for salt, sugar, tobacco, matches, tea, and liquor, in order to check further price increases in these commodities. Private producers are required to sell their stocks to the Government at prices fixed by

the Minister of Finance, and the Government expects to obtain considerable revenue from the sale of these products.

Although it might appear from the adoption of these measures that the Chinese economy had become a highly centralized and planned economy, as a matter of fact the control measures so far instituted have been a direct result of war necessities. Many economists, it is said, believe that there has been too much delay in setting up controls, and that if these measures had been taken at the outset of the war, inflation in China would not have reached its present magnitude.

MANPOWER-CONTROL REGULATIONS IN PALESTINE

THE control and distribution of manpower in Palestine in the interests of the war effort was placed under a Controller of Manpower by regulations issued by the High Commissioner, August 12, 1942.[1] This action was necessitated by the increased recruitment for the military services, the expansion of industry, and the need for increased food production which had brought a danger of a serious shortage of certain types of skilled labor needed to maintain industrial production. The objective of the Controller will be to take all possible steps in consultation with the War Supply Board, representative bodies, labor organizations, etc., to secure the most effective allocation of available manpower, having regard to the needs of the military authorities, the essential services of war industries, and agriculture.

The regulations, cited as the Defense (War Service Occupations) Regulations, 1942, provide that "war-service occupations" shall be designated as such by the High Commissioner and that no person who is employed in any war-service occupation may leave it without the consent of his employer, unless he has the written permission of the Controller. No employer may terminate the service of an employee (except with the written permission of the Controller), without the employee's consent, unless the employee has been guilty of gross misconduct or insubordination, or unless the employer has more suitable work to offer the employee. An employer may report to the Controller or his representative any person in a war-service occupation who absents himself from work without leave or without reasonable excuse, is persistently late, fails to comply with lawful orders (including orders as to working a reasonable amount of overtime), or persistently behaves in such a manner as to impede production in the undertaking.

Employers of persons in war-service occupations are required to pay normal wages, that is, the wage currently paid in the locality, during periods in which work is not available to such persons in their usual occupations, if they are capable of other work and are available for and are willing to perform such services.

An Appeal Tribunal, consisting of the Attorney General and two other persons, is to be established, to which any employee in a war-service occupation may appeal in cases of unauthorized dismissal. Fines and penalties are fixed for contravention of the terms of the regulations.

[1] Supplement No. 2 of the Palestine Gazette No. 1217, August 13, 1942.

COMPULSORY LABOR SERVICE IN SWITZERLAND

A FEDERAL decree of September 1939 in Switzerland and an order issued in May 1940, both of which dealt with compulsory labor service, were amended by a decree issued September 18, 1942.[1] Under earlier decrees all men between the ages of 16 and 65 and women between 16 and 60 were liable for compulsory labor service, with the exception of public officials, members of the defense forces, frontier guards, members of the police force, housewives responsible for the care of children or other persons requiring attendance, and persons either physically or mentally incapacitated. Persons liable for compulsory labor service could be called up for maintenance of the economic life of the country, particularly public and private undertakings in agriculture and forestry, handicrafts, industry, commerce and transport, and services of public administration including educational institutions, hospitals, etc.

The September 1942 decree, effective November 1, 1942, provides that labor-recruiting offices must comply without delay with all requests for manpower for the economic and industrial branches to which compulsory service is applicable—if necessary, by drafting workers. The offices are required to maintain a register of persons liable for compulsory service, and such persons who are unemployed or not regularly employed must register with the labor offices.

The War Industry and Labor Office may determine for a specified period the number of workers whom each canton has to keep available for compulsory labor service when needed. The Office is empowered to draft both employed and unemployed workers and, if necessary, to transfer them from one working place to another. The execution of such measures is in the hands of the competent labor-recruiting office, but a general levy of workers for compulsory service can be made only by the Federal Department of Economy.

An employer in the industrial or economic fields to which compulsory labor service applies is required to notify the competent labor-recruiting office when persons liable to compulsory labor service are engaged, and also must give advance notice of the termination of employment of such persons as well as notify the labor office of cases of refusal to work and of unauthorized absences.

Employers are required to take all necessary measures so that employees may avail themselves of any privileges to which they are entitled. A petition filed with the employer by a person drafted for compulsory labor service, for payment to be made to his wife, must be acted upon by the competent judge within 8 days, and such an employee must be given the opportunity to make a written statement regarding the petition, which may be filed in the Cantonal labor-recruiting office of the wife's residence.

Penalties are provided for violations of regulations of the labor service or other competent authorities, or for hiring workers known to be engaged in compulsory labor service, or for attempting, by false or incomplete returns, to secure the benefit of privileges accruing to persons drafted for compulsory labor service.

[1] Data are from report of Maurice W. Altaffer, United States Consul at Zurich.

COMPULSORY INSURANCE AGAINST INTERMITTENT UNEMPLOYMENT IN IRELAND

INSURANCE against intermittent unemployment in the building industry in Ireland, or in any other trade that is declared by the Ministry for Industry and Commerce to be insurable employment, was established by a law passed in 1942.[1] The act applies to any person aged 16 years or over who is employed in insurable employment under a contract of service or apprenticeship, irrespective of the method of payment, except in the case of a contract of apprenticeship under which no money is payable by the employer.

Insurable employment covered by the act means employment commonly carried out by builders or building contractors and includes the construction, alteration, repair or demolition of buildings, the clearing and laying out of sites for buildings, and all work in the manufacture, alteration, fitting or repair of wood, stone, marble, slate, cement, etc., used in building construction, and of a type commonly made in builders' workshops or yards.

The act establishes a supplementary unemployment fund formed by weekly contributions by insured persons and by employers. No contribution is payable for calendar weeks in which no services are rendered by an insured person; and if the insured is employed by the same employer in any calendar week partly in insurable employment and partly on other work, no contribution is required unless he has been employed at least half of the time in insurable employment. The employer is responsible for the payment of both his own and the employee's contributions. The weekly rates of contribution for both employers and employees are 8d. in the case of skilled workers, 5d. for unskilled workers, and 2d. for young persons.

Benefits are payable for each hour of intermittent unemployment occurring during regular working hours but are not payable for fractions of an hour. "Working hours" include the hours, exclusive of overtime and mealtime, on any day except Sundays and holidays, during which, if there was not inclement weather, work in an insurable employment would have been performed by an insured person. The supplementary benefits which are payable by the employer and repaid to him out of the supplementary unemployment fund, amount to 1s. per hour for skilled workers, 7½d. for unskilled workers, and 3d. for young persons.

[1] Irish Free State. Insurance (Intermittent Unemployment) Act, 1942. Dublin, 1942.

COST OF UNEMPLOYMENT BENEFITS IN GREAT BRITAIN, 1920–41

A RECENT statement by the British Minister of Labor and National Service shows the amounts paid under the unemployment-insurance system during the past two decades.[1]

The system established in 1911 has been the subject of frequent amendments under which benefits have been liberalized and the scope of the system extended. In 1931 a system of transitional benefits was established for insured workers who had exhausted their claims to standard unemployment benefit and who were shown as a result of a means test to be in need of this aid. Benefits were reduced in 1931, but were restored by the 1934 amendments to the acts, which also provided for the establishment of an unemployment-assistance system in which the transitional-benefits scheme was to be merged eventually. An unemployment-assistance board was established in 1935 to administer these benefits. In 1936 agricultural workers, who had formerly been excluded, were admitted to the unemployment-insurance system, and in 1937 the waiting period for the payment of benefits was reduced from 6 days of continuous unemploy-

Unemployment-Insurance Benefits and Allowances and Cost of Administration, in Great Britain, 1920–41

Period	Insurance benefit and transitional benefit			Transitional payments and unemployment allowances [1]		
	Amount (in thousands of pounds)	Cost of administration [2]		Amount (in thousands of pounds)	Cost of administration	
		Amount (in thousands of pounds)	Percent of total payments		Amount (in thousands of pounds)	Percent of total payments
Nov. 8, 1920, to July 1921	33,578	([3])				
Year ending July—						
1922	52,871	[4] 7,133	13.5			
1923	41,909	[4] 4,685	11.2			
1924	35,994	4,086	11.4			
1925	44,602	4,595	10.3			
1926	43,685	4,890	11.2			
July 1926 to March 1927	38,691	3,788	9.8			
Year ending March 31—						
1928	36,474	4,914	13.5			
1929	46,749	5,325	11.4			
1930	45,944	5,463	11.9			
1931	92,267	6,671	7.2			
1932	80,144	5,364	6.7	30,742	1,633	5.3
1933	54,150	4,213	7.8	50,400	3,386	6.7
1934	40,170	3,756	9.4	48,442	3,740	7.7
1935	43,785	4,144	9.5	42,199	4,010	9.5
1936	42,701	4,609	10.8	42,415	4,287	10.1
1937	35,321	4,944	14.0	37,429	4,401	11.8
1938	36,681	5,128	14.0	36,685	4,710	12.8
1939	55,080	6,267	11.4	35,330	4,302	12.2
1940	37,501	5,521	14.7	27,237	4,708	17.3
1941	20,243	4,430	21.9	12,776	[5] 2,614	20.5

[1] The transitional-payments scheme was superseded by the unemployment-assistance scheme (administered by the Assistance Board) as from Jan. 7, 1935.
[2] These figures relate to the whole cost of administration of unemployment insurance; separate figures for the cost of paying benefit are not available.
[3] Not available.
[4] Data are for years ending Mar. 31.
[5] Excludes the cost of services administered by the Assistance Board other than unemployment allowances (i. e., supplementary pensions).

[1] Great Britain, House of Commons, Parliamentary Debates, London, September 10, 1942.

ment to 3 days. Under the 1935 law and regulations of 1937, domestic-service employees of any trade or business were brought into the system; domestic servants in private families were not included. In 1940 nonmanual workers with incomes ranging from £250 (the former limit for inclusion in the system) to £420 were brought under the system. At that time benefits for both industrial and agricultural workers were increased. Unemployment-assistance allowances for householders and members of their families were increased by regulations issued in 1940, and the household "means" test was greatly modified in 1941 to remove causes of complaint against the test which had been in effect up to that time.

The foregoing table shows the amounts paid for insurance benefit and transitional benefit, for transitional payments and unemployment allowances, and for costs of administration, from November 8, 1920, to March 31, 1941.

WAR WORK OF THE U. S. WOMEN'S BUREAU

EARLY in 1941 the Women's Bureau was formally recognized as the official agency for all matters relating to women's employment in the war effort. It had recorded the World War experience in the use of woman labor in 1917 and 1918 and, for many years thereafter, had been consulted by the Planning Division of the War Department concerning the employment of women during any future war. It was natural, therefore, that the Under Secretary of War, Robert P. Patterson, should write the Secretary of Labor, under date of March 15, 1941, "* * * I shall take measures to see that the services in the War Department take up all matters of concern to woman workers with the Women's Bureau."

Since that date there has been close cooperation with the several services in the War Department to bring about the most effective employment of women in war industries. Cooperative relationships have been established, as occasion warranted, with the Navy Department, Civil Aeronautics Board, Office of Vocational Education for National Defense, National Housing Authority, Office of Defense Health and Welfare Services, National Labor Relations Board, War Production Board, State labor departments, women in labor unions, USO organizations, scores of individual employers having war contracts, and latterly with the War Manpower Commission.

Analyses of Jobs for Women in War Industries

Although War Department's plans called for utilization of women in war industries and several arsenals pioneered in extending women's employment to many processes, the availability of masses of men during 1940 and early 1941 resulted in a lack of interest in woman workers on the part of private employers. It was deemed advisable to take advantage of this pre-war period to become fully informed of modern methods of producing the weapons of war, to review the background of women's employment during World War I, and to make careful analyses of jobs in relation to their suitability for women.

The work women were doing on punch presses, drilling machines, milling machines, lathes, grinders, and polishers, as well as their high record of achievement in inspection, assembly, filing, and other bench work in peacetime metal and electrical industries were well known to the Women's Bureau. The extent to which these developed skills would be useful to war-implement industries was easily demonstrated. In the last war women had proved themselves able in an emergency to make good on any job, if adequately trained. However, for practical purposes in the first year of the present war, it seemed advisable to

limit recommendations for women's employment to work comparable to what many women have done or are doing in other industries—to work the average woman can do as well as, or better than, the average man. If women were placed in such occupations only, the greatly expanded war production program could be met with a labor force composed one-fourth of women.

In the following pages is given a summary of suggestions as to possibilities of extended utilization of women in principal operations in the making of airplanes, instruments of varied types, and small arms and artillery ammunition, which was made for Government departments and private employers during 1941. Detailed descriptions of occupations are given in the body of a report on each industry. In 1942, similar occupational analyses were or are being made of pistol, rifle, and gun manufacture, machine-tool production, shipbuilding, airplane engine and propeller building, and explosives manufacture. As demands of the Army and Navy call more men from production, these analyses will be extended to other industries.

Women's employment in war industries has increased materially in the last 6 months. Most spectacular is their employment in airframe manufacturing, where they constitute 13 percent of the productive staff as compared to less than 1 percent in 1941. Estimates of May 1942 indicate that even when office workers are included the total number of women in manufacturing war supplies is less than a million or 11 percent of the almost 8 million workers. Obviously, full utilization of women in the occupations listed below is far from being achieved.

AIRCRAFT ASSEMBLY [1]

In every department of the aircraft industry, as now organized there are varying proportions of occupations in which women may be employed as the industry expands. In all departments there are jobs deemed not suitable for women, either because the work is beyond the average woman's physical strength (570/1000 that of man) and resistance (679/1000 that of man), or because the work requires lengthy experience and training which the emergency does not permit.

However, many of the jobs which women can do most effectively are to be found in production departments, such as machine shop, the press and forming, metal fabrication, bench and stainless steel assemblies, the assembly of the fuselage, wings, control surfaces, cowling, fairing, tank, final assembly, painting, covering, heat treating, anodizing, and welding departments. From a practical standpoint at the present time, departments concerned with the design, lay-out, making and repairing of patterns, molds, templates, jigs, fixtures, tools, and experimental planes, and the service departments, require a high degree of mechanical skill and experience which few women have or could obtain in a short period. In the foundry, shipping, receiving, trucking, and maintenance, much of the work is intermittently heavy and concerned with cumbersome parts. The jobs involved in these departments, however, include not more than 15 percent of the total factory employment.

[1] See U. S. Women's Bureau Bulletin No. 189-1: Women's Factory Employment in an Expanding Aircraft Production Program, Washington, 1942.

As a conservative estimate it seems reasonable that at least one-fourth to one-third of the jobs in the aircraft-assembly plants might be filled satisfactorily by women.

The following is a list of the principal jobs on which women may be employed effectively:

Machine operating:
- Drilling, reaming, countersinking on single, multiple drills, and pneumatic drills.
- Small milling machines.
- Small turret lathes.
- Small and medium-sized punch presses.
- Small angle-bending machines and brakes.
- Light grinders.
- Riveting and dimpling machines.
- Spot welding.

Bench work:
- Burring and filing of all kinds.
- Soldering.
- Hand forming over templates and blocks.
- Tube cutting, bending, and assembly.
- Electrical assemblies.
- Wiring and bending.
- Subassemblies in jigs and at benches.

Hand and machine sewing of covers and fabric accessories.
Stretching of covers on plane surfaces.
Doping.
Painting—Spraying of small parts, stenciling, applying decalcomanias, masking, touch-up, etc.
Racking in paint, heat treating, anodizing, and plating departments.
Detail inspection of parts and subassemblies.
Departmental factory clerks and assistants in planning, parts control, blueprint despatching, and drafting.
Tool-room attendants.

INSTRUMENTS—AIRCRAFT, OPTICAL AND FIRE-CONTROL, AND SURGICAL AND DENTAL [2]

In normal times the manufacture of instruments of the types covered was on a relatively small scale, and much of the production of aircraft and fire-control instruments was on a constantly changing and experimental basis. For many years, machining and assembly were done almost entirely by men classed as all-round skilled instrument makers. However, with increased production, jobs have been broken down and women employed to a considerable extent. The proportion of women and the jobs on which they are employed, however, differ materially from plant to plant. In some plants women are working satisfactorily on machine and assembly operations, while for the same jobs in other plants women have never been considered.

In Great Britain special training courses have been offered to women as well as men in the making and fitting of instruments. Instruction covering both theory and practical application is provided in correct use of tools, gages, calipers, verniers, micrometers, and in blueprint reading, soldering, buffing, drill presses, lathes, gear cutters, milling, precision fitting, and bench assembly. In the United States, in the defense training program in most of the cities visited, general courses in machine-shop practice and assembly were open to relatively few

[2] See U. S. Women's Bureau Bulletin No. 189-4: The Employment of and Demand for Women Workers in the Manufacture of Instruments—Aircraft, Optical and Fire-Control, and Surgical and Dental, Washington, 1942.

women. Only two plants had courses of study and specific training programs as formal instruction for employees, and in one plant only men had been admitted because the training was given primarily as part of an upgrading plan and the policy was not to consider women for job progression beyond unskilled repetitive work. In all other plants, training was on the job. Many of the beginning jobs in the machine-shop, assembly, and inspection sections have been closed to women, as these operations are regarded as the beginning step for young boys who progress to more skilled work.

The summary presented below is merely indicative of the kinds of work being done and the feasibility of extending the employment of women on the various processes.

Aircraft instruments

	Sex	*Possible extension of women's employment*
Assembly and bench work:		
Mechanism subassembly	M and W	Proportion could be increased.
Mechanism final assembly	M and W	Do.
Special assemblies—		
Diaphragm	M	Women could be used entirely.
Pitot tube	M	Slight probability of using.
Gyro motors	M and W	Proportion could be increased.
Autosyn electric motors	M and W	Do.
Closing of instruments	M and W	Women could be used entirely.
Testing and inspecting:		
Parts inspection	M and W	Proportion could be increased if trained or upgraded from instrument-assembly operations.
Calibrating	M and W	
Electrical tests	M and W	
Cold, vibration, and run tests	M and W	
Final instrument inspection	M	

Optical and fire-control instruments

Optical work:		
Blocking	M and W	Only a few women used on single-spindle blocking and polishing.
Grinding	M	
Polishing	M and W	
Centering	M and W	With training, women could be used or proportion might be increased on all operations.
Cementing, engraving, etching, and silvering.	M and W	
Cleaning and inspecting	M and W	
Assembly and bench work:		
Range and height finders, panoramic sights, periscopes, plotting boards, quadrants, sextants, octants, etc.—		
Minor subassemblies	M and W	Subassemblies made by women are very minor: not much possibility of increasing proportion.
Main assemblies	M	
Binoculars, telescopes, aircraft sights, and small gunsights—		
Mounting, cleaning, and inspecting optical parts.	M and W	Proportion could be increased.
Sighting, adjusting, collimating, calibrating, etc.	M	With training, women could do in part.

Surgical and dental instruments

	Sex	Possible extension of women's employment
Assembly and bench work:		
Forceps, pliers, retractors, etc.	M	Slight probability of increasing proportion.
Dental stands and chairs—		
Minor subassemblies	M and W	
Main assemblies	M	
Dental hand pieces and fittings	M and W	Proportion could be increased.
Clinical thermometers	M and W	Women employed extensively.
Special machining of dental burrs and broaches.	M and W	Do.

General operations applicable to most instruments and small-metals production

Heavy-duty machines:		
Drill presses	M and W	Proportion could be increased.
Punch presses	M and W	Do.
Milling machines	M and W	Do.
Metal polishing and grinding	M	Not suitable for women.
Turret lathes	M	With extensive training women could be used on lighter machines. Otherwise, probability slight.
Engine lathes	M	
Hand screw machines	M	
Automatic screw machines	M	
Gear cutters	M	
Secondary or light machines:		
Bench, watchmakers' lathes, etc. (turning, buffing, burnishing, burring, lapping, etc.)	M and W	Women employed quite generally and they could do more of light work.
Micromilling	M and W	
Sensitive drill press	M and W	
Small automatic screw	M	Slight probability without extensive training.
Hand and machine burring	M and W	Proportion could be increased.
Machine-shop inspection	M	Slight probability of employment.
Painting:		
Spray	M and W	Proportion could be increased.
Touch-up and brush	M and W	Women employed extensively.
Fill-in	M and W	Do.
Radium	W	
Graduating and engraving	M and W	Proportion could be increased.
Heat treating, plating, and anodizing	M	Not suitable for women.
Inspecting, cleaning, wrapping for stock and shipment.	M and W	Proportion could be increased.

ARTILLERY AMMUNITION AND COMPONENTS [3]

Women already are employed in Government arsenals and in parts manufacture at many operations, specifically as machine operators, assemblers, inspectors, packers, and so on. The new plants will offer many similar jobs. There will be wide opportunity of further expansion of women's employment in an expanding production, both on new jobs and as substitutes for male operatives if the need arises. Undoubtedly women can carry on well over half of the operations in the manufacture of artillery ammunition. The list following shows the possibilities of extended utilization of women in making artillery ammunition.

[3] See U. S. Women's Bureau Bulletin No. 192-2: Women's Employment in Artillery Ammunition Plants, Washington, 1942.

	Sex	Possible extension of women's employment
Metal components manufacturing:		
Toolmaking, adjusting, setting up machines, etc.	M	Not suitable for women.
Machine operations	M and W	Proportion could be increased.
Assembly	M and W	Do.
Inspection	M and W	Do.
Fuze assembly (including detonators, fuze primers, boosters, etc.):		
Machine operations	M and W	Women could be used almost entirely.
Assembly	M and W	Do.
Inspection	M and W	Do.
Loading	M and W	Do.
Packing	M and W	Do.
Propellant primers:		
Body and head machine operations.	M and W	Proportion could be increased.
Assembly of body and head	M and W	Do.
Loading (explosives operators)—		
Head	W	———
Body	M	Women could be used entirely.
Projectile manufacturing:		
Machine operations	M	Women could be substituted in part on lighter projectiles.
Inspection	M	Women could do 37-mm.
Painting	M	Do.
Packing	M	Do.
Cartridge-case manufacturing:		
Drawing, annealing, pickling, etc.	M	Not suitable for women.
Machine operations	M	Could be substituted in part.
Stamping identification	W	———
Inspection	M and W	Proportion could be increased.
Packing	M and W	No further extension possible.
Projectile loading:		
Melting, pouring, and compressing explosives.	M	Not suitable for women.
Drilling fuze cavity	M	Do.
Cleaning threads and miscellaneous light jobs.	M	Women could be substituted in part.
Case loading and assembly:		
Inserting primer	M	Women could do 37-mm. and 75-mm.
Weighing and pouring powder	M and W	Women could be used entirely.
Crimping case to projectile	M	Women could do 37-mm.
Miscellaneous machine operations	M	Women could be substituted in part.
Painting and stenciling	M and W	Proportion could be increased.
Packing	M and W	No further extension possible.
Inspection	M	Women could do 37-mm.

	Sex	Possible extension of women's employment
Bag loading:		
Bag sewing—		
Cutting and trimming	M	Women could be used entirely.
Power-machine operating	W	———
Smokeless-powder bag loading—		
Weighing and loading	W	———
Sewing loaded bag	W	———
Black-powder bag loading—		
Weighing and loading	M	Not suitable for women if hopper must be filled.
Sewing loaded bag	W	———
Putteeing propellant charges	M	Not suitable for women.
Inspection	M and W	Proportion could be increased.
Packing	M and W	Do.
Explosives manufacturing:		
Smokeless powder	M	Not suitable for women.
Black powder	M	Do.
TNT, amatol, etc	M	Do.
Black powder pellets	M	Women could be used entirely.
Tetryl pellets	M	Do.

SMALL-ARMS AMMUNITION[4]

Since the small-arms ammunition industry has a small product which is standardized as to operations and machining and which requires considerable care and attention to detail, women have been used extensively, and as the new plants get into production many more women will be employed in this branch of the defense program. In the Government arsenal at Frankford approximately 40 percent of the productive workers in 1941 were women, and as the dilution of labor increases, women undoubtedly will constitute a considerably larger proportion.

Women comprise a much larger proportion of the munition makers abroad than in the United States. Possibilities of extended utilization of women for such work are summarized in the following.

Bullet manufacturing:	Sex	Possible extension of women's employment
Bullet jacket:		
Drawing (several draws)	M	Women could be substituted in part for men.
Annealing, pickling, and washing.	M	Not suitable for women.
Trimming	M and W	Proportion could be increased.
Bullet point or core—		
Melt and ingot molding	M	Not suitable for women.
Extruding and forming	M	Do.
Washing and drying	M	Do.
Bullet assembly	M and W	Women could be used entirely.
Tracer-bullet charging	M and W	Proportion could be increased.

[4] See Women's Bureau Bulletin No. 189-2: Employment of Women in the Manufacture of Small Arms Ammunition.

	Sex	*Possible extension of women's employment*
Case manufacturing:		
Drawing (several draws)	M	Not suitable for women.
Annealing, pickling, and washing.	M	Do.
Polishing	M	Do.
Pumping, pocketing, and heading.	M	Do.
Trimming	W	———
Head turning	M and W	Women could be used entirely.
Body and mouth annealing	M and W	Do.
Tapering	W	———
Chamfering	M	Not suitable for women.
Primer inserting	W	———
Primer:		
Blanking and forming cup and anvil.	M	Women could be substituted in part for men.
Shellacking strips for foiling	W	———
Pellet forming	M	Women could be substituted for men.
Foil and knock out	W	———
Inserting of anvil	W	———
Press anvils into primer cup	M	Women could be substituted for men.
Primer inverting	W	———

Counseling of Employers

The widespread attention given since December 7, 1941, to the calling of women as a practical source of new labor supply has constantly increased the number of calls on the Women's Bureau from individual employers requesting advice as to the occupations and the conditions of work found successful for the employment of women. As far as is possible with a limited staff, these calls are met by personal visits to the plants by industrial experts familiar with the manufacturing processes and equipment. Other requests are met by letters giving detailed information. Groups asking for experienced advice are reached by addresses made by staff members to managerial associations, safety engineers, personnel directors, and so forth. Furthermore, in order that the Bureau's accumulating knowledge not only of the potential occupations of women but of their actual efficiency in such occupations may be made to reach the largest possible number of employers, as well as the many officials engaged in recruiting women and in forming training classes, the Bureau prepares for distribution mimeographed reports on industries.

Many companies primarily engaged in making war implements, or converting their operations to war work, must have the assistance of an agency whose personnel is experienced in advising as to the needs of a woman labor force. Such requests have come to the Women's Bureau from engineering firms and arsenals and from companies producing machine tools, sheet metal, ordnance, optical goods, locomotives, iron and steel products, copper and brass products, ammunition, electrical supplies, cement, chemical products, petroleum, glass products, aircraft, automobiles, and food products.

Plant managers, superintendents, training supervisors, personnel directors, medical advisers, and others pose all sorts of questions to the Women's Bureau. Typical is the statement of a personnel director of a machine company expected in the near future to hire some

women for factory work: "Before planning, we need some specific information." Or of a woman supervisor who says: "In heading up a women's program for our company, I am anxious to secure all pertinent materials." Included in types of information asked for by such plant officials are data on the following: The kinds of jobs women can do best; the extent to which they can handle the heavier work; methods and necessary time for training and upgrading woman workers; measures of women's skill; general health conditions for woman workers and their characteristic medical needs; proper methods of seating for correct posture; safety requirements as to headgear, shoes, and uniforms; laws and regulations as to women's work; wage standards for newly developed jobs for women: preventive measures in use of industrial poisons, causes and care of dermatitis, and other health hazards. And these employers have many more needs that the Women's Bureau has to meet.

Conditions of Employment

Plant management is desirous of obtaining information not only as to occupations suited to women but as to the physical requirements designed to spell efficiency in the use of a woman labor force, such as desirable arrangements of work shifts, advantageous rest periods, suitable and safe work apparel, healthful seating, adequate service facilities, and personnel requirements. To cover such matters, concerning general standards and policies to be observed, the Bureau is issuing a series of pamphlets that summarize some of the best data on subjects about which employers are asking. Already published are:

Hazards to Women Employed in War Plants on Abrasive Wheel Jobs.

Night Work for Women and Shift Rotation in War Plants.

Women's Effective War Work Requires Time for Meals and Rest.

Washing and Toilet Facilities for Woman War Workers.

Safety Clothing for Women in Industry.

Lifting Heavy Weights in Defense Industries.

These are done in such easily readable fashion that some firms have ordered them in 5,000 lots for distribution to workers. In preparation are similar pamphlets on seating, and on dermatitis. The Bureau also has prepared material requested by the War Department, to be incorporated as the section on working conditions of its health and safety manual, for the use of plant supervisors.

Many complaints have reached the Bureau from workers, in respect to conditions in plants that had always employed women but have speeded up or expanded because of war contracts. To secure a factual understanding of such difficulties, some 700 woman workers were called upon in their homes. The relationship of conditions of work to morale of woman workers was clearly discernible. The plants in which these women worked also were visited, and wherever possible needed changes were discussed with management. These personal interviews are being followed up with letters containing pertinent material for the use of the employers. That such a method achieves results may be judged from the answers received, excerpts from which follow:

> We are happy to report that most of the things complained about [by employees] have been corrected. We are taking immediate steps to correct the remainder.

Mrs. ——— gave us several very constructive suggestions and it has been a pleasure on our part to have followed these instructions. We believe another visit will find a marked improvement in the handling of the matters brought to our attention.

You may be sure we are correcting the crowded toilet conditions to which you refer, as rapidly as possible.

Some of the comments of woman workers are worthy of summarizing here, as they indicate attitudes that result in plant problems and have a definite effect in lessening production:

Wages.—Older employees resent the fact that they worked without increases in pay for years and now new employees earn as much as they do.

A feeling existed that machine operators should receive more than bench workers because work is harder.

Confusion and lack of understanding was expressed about the system for wage increases.

Absenteeism.—When the plants work 7 days a week very few women on the third shift report for work Saturday night. Now, when they have Saturday nights off, few will work Sunday night.

Many of the women employed have home responsibilities and must have time off to do their housework.

Young girls take time off to shop around to find the job they like best.

Absenteeism may be caused partly by lack of interest in the job and a feeling that it is not very important. Where an absence report is required of each person when she returns to work, it is customary for the women to state that their absences are due to illnesses regardless of the cause. [The latter statement checks with the very limited amount of illness reported by woman workers to Bureau agents.]

General conditions in plant.—Present arrangement of eating at machine, in toilet rooms, or in automobiles is not satisfactory.

Employees would like to be able to get hot coffee in plant.

Toilets in old building are not clean and are not adequate in number but are overcrowded.

The washroom is not available for half an hour before leaving. [This seemed most annoying to workers traveling long distances in public conveyances.]

Since it is frequently cold in workrooms in old building, girls must either smuggle coats into the room or go through a lot of red tape to get permission to get their coats.

Thermos bottles have been opened for inspection when brought into the building. Heat is lost.

[There is much evidence of need for interpretation of firm policies, and for a personnel manager to whom complaints can be made and who will allay rumors and exaggerated notions.]

Wage Rates in Occupations of Women and Men in War Industries

The speed with which women are employed, as well as their spread over the occupational field, changes in direct relation to the availability of male labor in each area. Today, in one plant men are working on jobs that women are doing in another plant having similar production, and in more and more cases men and women are working side by side on the same work in the same plant. In such situations, many wage-rate problems arise, calling for new scales both in union agreements and in nonunion plants. At the urgent request of woman workers, the Women's Bureau has held many conferences with trade-union officials concerning the subject. The result has been that the United Electrical, Radio and Machine Workers of America and the United Automobile, Aircraft and Agricultural Implement Workers of America have agreed that woman workers shall receive the same wages as men when they perform the same operations, and such a clause becomes a part of new local contracts.

This subject has been included in several cases before the National War Labor Board. In order to outline sharply the present situation for the Board's attention, the Women's Bureau made a detailed job analysis of the work done by women and men in several gun plants, and presented a factual statement concerning the work done by women and men and the wage rates paid on various processes. Time and again the maximum rate paid to women on comparable operations was lower than the minimum rate paid to men working on the same machine and same part. Such differences in wage rates cause much unrest among both man and woman workers. The National War Labor Board in its directive order in the case of the General Motors Corporation and the United Automobile, Aircraft and Agricultural Implement Workers of America stated:

> Wage rates for women shall be set in accordance with the principle of equal pay for comparable quantity and quality of work on comparable operations.
>
> Any dispute arising as to the question of quality, quantity, or comparability, as herein defined, shall be subject to final determination by an arbitrator appointed by the National War Labor Board; provided, however that any such dispute which involves an alleged violation of a local wage agreement shall be settled within the procedural framework of the grievance provision in the agreement.

To assist both employers and union officials, and in response to repeated requests, the Women's Bureau has prepared a bulletin giving information on various aspects of the subject of women's wage rates, showing official Government support of the "equal pay" principle, and inclusion of clauses to this effect in union agreements, and summarizing experience as to related subjects, such as standards of women's output, their special skill in the light industrial processes now so widely demanded in the manufacture of war necessities, and so forth. The Women's Bureau outlines the following as a general standard recommended in fixing women's wages in plants manufacturing war products:

> 1. If the job or operation is a new one, the rate should be fixed according to the job, and regardless of whether a man or a woman is to perform it.
>
> 2. If a woman is placed on a job formerly done by a man, or on a type of job customarily done by a man, she should receive the identical rate paid the man. Managements sometimes make slight changes for the purpose of improving the process, and such changes cannot be taken as a valid basis for paying a lower wage rate to women.

The largest numbers of women are and will continue to be employed in nonwar industries and services. With increased living costs, with a much higher wage standard in war-implement industries, discontent and restlessness ensue among such workers, who are essential for civilian life. Less than a third of woman workers are organized in trade-unions. For many millions of women who are not organized, legal minimum-wage rates have afforded the only means of eliminating substandard wage rates. The fixing of legal minimum-wage rates by States was essential to insure payment of a fair living wage to workers in service industries not covered by the Fair Labor Standards Act. Up to the time the President established the Office of Economic Stabilization, the Women's Bureau had been advising State authorities as to the types of legal regulations that have proved most effective in correcting injurious conditions of employment during the war period.

The Bureau also renders technical assistance on all phases of minimum-wage legislation, administration, and enforcement. This technical assistance reaches through all stages of minimum-wage activity.

For example, where a State agency desires to issue new wage orders, the Bureau cooperates in the preliminary survey of the cost of living of employed women in the State, and prepares draft wage orders to assist wage boards, incorporating standards found to be desirable by experience. Or, where a State finds it advisable to revise a wage order or one of its provisions, to meet a specific enforcement problem, the Bureau's experts suggest methods and wording; they also constantly advise with all States on enforcement methods and techniques, and in this way are able to give each State the benefit of the methods and experience of other States.

The authority vested in the National War Labor Board to approve wage increases calls for a new form of assistance by the Bureau to the 26 States having minimum-wage legislation, which may wish to increase their issuance of new wage orders or revise present orders by bringing them in line with the rising cost of living.

Labor Laws and Regulations Affecting Women's Work

Immediately after the Pearl Harbor attack the War Department called on the Women's Bureau to make investigations as to the operation of certain labor regulations in the employment of women in war-implement factories. This situation was surveyed through visits to plants having large war contracts in several major industrial States. Subsequently, the Bureau participated in joint conferences of State labor commissioners and the War and Navy Departments for the preparation of acceptable basic labor standards for woman employment in plants having war contracts.

These agencies at that time designated sound labor standards as "the mechanisms of efficiency," and stated that "industrial history proves that reasonable hours, fair working conditions, and a proper wage scale are essential to high production." Subsequently, very few States found modifications of law necessary to make it possible to meet production schedules, and most of these few made only very minor changes. The Women's Bureau endorses the policy that authority to grant temporary modifications of existing laws be lodged in State labor departments and that the following procedure be observed when the quantity of temporary exemptions makes it necessary.

Each employer seeking temporary exemption from State labor laws to be required to file an application with the labor commissioner.

Each application to be thoroughly investigated by the labor commissioner to determine whether the need for such an exemption actually exists.

No permit granting an exemption to be issued to an employer who can maintain labor standards by using available labor supply, or by making adjustments in the organization of his plant.

No permit to be issued, even though trained workers are lacking, unless the employer makes satisfactory arrangements to train or to secure trained workers within a reasonable time.

No exemptions to be granted to employers not engaged in war work.

No permit to be issued if the health and welfare of the workers would be endangered thereby.

Permits to be limited to individual plants and for specified periods of time and to be revoked when exemptions are found to be unnecessary to maintain maximum war production.

In the ensuing months the Women's Bureau has observed the effect of these recommendations through plant investigations within several States, and is continually cooperating with State labor departments,

as well as with the employers, in the alleviation of conditions of women's work so unsatisfactory as to affect their health and output.

Studies are being and will continue to be made of the effects of the administration of existing legislation on the well-being of woman workers. For example, a study is about to be undertaken to determine whether benefit-payment policies of State unemployment compensation commissions are forcing women to work longer than they should immediately before childbirth, or to return to work too soon afterward, or to accept night work and other injurious job conditions whether or not they are physically fitted for them. This has been especially important at the present time because of the increasing employment of married women and the increasing birth rate.

Community Facilities in Industrial Areas

Plants manufacturing or handling explosives have been located in rural areas. The Women's Bureau has made special investigation in 17 of these areas concerning the adequacy of housing, food, recreational, and other facilities for working women. Since most of these plants have been quite recently constructed, accommodations frequently were inadequate. Following such investigations, recommendations were made to the National Housing Authority concerning the housing needs of the community. Numerous conferences with assistants in that agency have been held, to the end that better housing arrangements are under way. Many conferences were held with representatives of the Office of Defense Health and Welfare Services both in the field and at headquarters. Copies of the Women's Bureau community-survey reports have been sent at their request to each of their regional directors, and every effort has been made to bring about the necessary changes in eating and recreational facilities.

As an example of results obtained, action is now being taken to provide recreational leadership and facilities for Elkton, Md., a community in which nothing had been provided for women even though their influx for work in two munition plants called for building of dormitories. In addition to the foregoing, crowded industrial areas in Connecticut to which women are migrating also have been studied. Recommendations as to housing and recreation needs will be forwarded to the proper administrative agency.

Requests from many communities made it evident that administrative agencies needed a statement of guiding principles. The Women's Bureau responded with the preparation of a small bulletin outlining the best acceptable standards for the housing, transportation, and recreation of woman war workers. In connection with the housing of woman war workers, for example, the Women's Bureau, following its investigations of communities and its conferences with other authorities in this field, recommends the following:

All types of housing for woman war workers should conform to standards essential for safety, security, health, decency, adequacy, privacy, cleanliness, and comfort.

Living quarters should be conveniently located in regard to workplaces and recreation facilities, and be in pleasant surroundings.

Room rent should not exceed 20 percent of a woman's income.

Safeguards should be set up in every community to control rents and to prevent other dangers from hit-or-miss room finding.

Single rooms are preferable, or double rooms with not more than two women, each with her own bed.

Rooms (whether in private homes, boarding or lodging houses, dormitories, etc.) should be adequately furnished (including a closet with lock or a locker preferably for each occupant) and should be properly heated, ventilated, and lighted.

Bathing facilities and toilets should be modern and in good repair, arranged to give necessary privacy, conveniently located and sufficient in number (in the ratio of a modern bath, or shower, and toilet for every 5 to 7 persons; a washbasin to every 4, unless there is running water in the bedroom, then 1 for every 7).

A place on the premises for entertaining guests outside the bedroom should be available.

Eating facilities of proper kind should be conveniently located, with satisfactory inexpensive meals.

Especially for rural areas, the Bureau recommends the cooperation of local women's groups in making available satisfactory living places, and, in cases where the need develops, improved types of housing projects for women. Especially for large cities, the Bureau recommends that an organized room-registration service of a satisfactory type be created and that, where necessary, special dormitories for women be built.

Agricultural Woman Workers

The transfer of vast numbers of agricultural workers to the war industries, as well as the rapid induction of others into the armed forces, has resulted in a growing demand for the employment of women in agricultural work. In the next few years, much of the work of harvesting and picking heretofore performed by migratory labor in the many local communities will have to be carried on by women. Further, women will be needed in increasing numbers not only for their traditional work of packing and canning, but also for nearly all types of regular farm work. On April 1, 1942, there were 1,328,000 woman farm workers in the United States. The anticipated employment of women in large numbers in agriculture creates many new employment problems. In interesting women in such work, the Bureau is cooperating with other Government agencies primarily concerned. In addition, the Bureau performs a function not carried on by any other agency, namely, that of formulating and helping put into practice standards for women's employment. These standards are incorporated in a bulletin entitled "Guides for Wartime Use of Women on Farms."

Women's Bureau, A Center of Information on Women's Work

In a situation changing as rapidly as is the situation with respect to the employment of women, there is need for a center for dynamic technical information and expert advice on the widest variety of subjects connected with women's work—the types of work women do best or can do, the effects of industrial and economic changes on their employment, and the conditions found satisfactory for their continued performance. The Women's Bureau is such a center and has available the records of the most useful experience accumulated through years of knowledge of women's industrial activity.

This also includes close contacts with current and developing situations in Great Britain, Canada, Latin America, and other parts of the world. Bureau representatives have visited Canadian war-implement plants and have become fully acquainted with the part women are playing there in the manufacture, for example, of guns and rifles.

Staff members of the Women's Bureau have conferred personally with the leading advisers and experts on women's work in England, such as Caroline Haslett and Margaret Bondfield; regular exchanges of information between this Bureau and these officials are maintained. In these countries, longer in the war than the United States, many valuable details are being gleaned as to technical woman-power problems that are beginning to face this country.

EMPLOYMENT IN WAR WORK OF WOMEN WITH YOUNG CHILDREN

THE maximum utilization of our labor resources in the war-production program means the recruitment and training of large numbers of women for gainful employment in occupations useful to the war effort. In order that this may be done in the most effective manner, the War Manpower Commission has declared the following basic policies as regards the employment of women with young children:

I. The first responsibility of women with young children, in war as in peace, is to give suitable care in their own homes to their children.

II. In order that established family life may not be unnecessarily disrupted, special efforts to secure the employment in industry of women with young children should be deferred until full use has been made of all other sources of labor supply.

III. Barriers against the employment of women with young children should not be set up by employers. The decision as to gainful employment should in all cases be an individual decision made by the woman herself in the light of the particular conditions prevailing in her home.

IV. Whenever it is found that women with young children are gainfully employed in essential activities, or that the labor requirements of essential activities have not been met after the exhaustion of all other sources of labor supply and that to meet such requirements women with young children must be recruited, it is essential that:

(*a*) Such women be employed at such hours and on such shifts as will cause the least disruption in their family life; and

(*b*) If any such women are unable to arrange for the satisfactory care of their children at home during their working hours, adequate facilities be provided for the day care of their children during working hours. Such facilities should be developed as community projects and not under the auspices of individual employers or employer groups.

In order to facilitate putting this policy into effect, the War Manpower Commission issued a directive on August 12, 1942, to certain Government departments and agencies, to develop, integrate, and coordinate Federal programs for the day care of children of working mothers.

The Office of Defense Health and Welfare Services of the Federal Security Agency, in consultation with such Federal departments and agencies as it may deem advisable, is directed to—

(*a*) Promote and coordinate the development of necessary programs for the day care of children of mothers employed in essential activities;

(*b*) Determine, either directly or through such Federal departments as it may designate, areas in which such programs of day care should be promoted, and the respective responsibilities of the Federal departments and agencies concerned in the development of such programs; and

(*c*) Take such action as may be necessary or appropriate to assure the effectuation of all such programs.

Estimates of the number of working mothers with young children and the expected requirements of essential activities for the em-

ployment of such mothers, by periods and areas, are to be prepared and kept current by the United States Employment Service for the use of the Office of Defense Health and Welfare Services.

Child day-care programs or programs related thereto, carried on by any Federal department or agency such as the WPA, the Children's Bureau, the Office of Education, the Bureau of Public Assistance of the Social Security Board, the Farm Security Administration, the Federal Public Housing Authority, etc., are to be made available to the Office of Defense Health and Welfare Services. These departments and agencies are directed to take such action as may be necessary to insure the integration and coordination, through the Office of Defense Health and Welfare Services, of all Federal programs for the care of children of working mothers.

On August 28, 1942, the President of the United States allocated the sum of $400,000 from his emergency funds to the Office of Defense Health and Welfare Services for the care of children of working mothers. The fund is to be used for administrative services necessary for ascertaining needs, developing and coordinating day-care services, and administering State and local day-care programs. Grants in aid are to be made to States which submit plans showing that no other State or local funds are available for the purpose. These grants are to be administered through the State department of welfare under plans approved by the United States Children's Bureau or through the State department of education under plans approved by the United States Office of Education.

The Children's Bureau is preparing statements of policy and procedure for the use of directors of State public-welfare departments and has made available the services of child-welfare field consultants for joint planning and application for allotments.

The Office of Education has made plans for advisory and supervisory services to aid States in making provision for schooling for two groups of children of working mothers. These include children between 2 and 4 or 5 years of age who need provision for kindergartens, junior primaries, or nursery schools; and children between 5 and 14 years who need all-day school programs of 10 to 12 hours every day in the week instead of the regular 5 or 6 hours now provided 5 days in the week. The services of a staff of specialists have been made available to the States, and where local or State funds are not available for operation of all-day school programs, applications for funds under the Lanham Act, if found to be justified, will be certified by the Office of Education to the Federal Works Agency for final action. The extended school services will, it is hoped, provide safety, protection, and desirable experience to such children while their mothers are at work.

Industrial Disputes

STRIKES IN OCTOBER 1942

THE downward trend in strike activity which began in August and September continued through October, according to the Bureau's preliminary estimates. The amount of strike activity in the latter month was about three-fourths as great as in September. The number of new strikes affecting war work declined from 156 in September to 93 in October. The number of workers involved was about 47 percent less than in September and the amount of idleness was lower than in the preceding 4 months. It is estimated that idleness during strikes in October amounted to 0.05 percent of available working time.

Compared with October 1941, the number of strikes was only a little more than half as great, the number of workers involved in new strikes was only 30 percent, and the amount of idleness only 17 percent as great.

The number of strikes in October was about the same as the average for that month during the 5-year pre-defense period, 1935–39. However, the number of workers involved was only 80 percent and the amount of idleness was only one-fourth of the corresponding 5-year averages for October.

The largest strikes in October were (1) the strike at the Western Cartridge Co. plant in East Alton, Ill., which involved about 10,000 employees and lasted from October 10 to 13, and (2) a 10-day strike of 5,000 anthracite miners in Pennsylvania.

Trend of Strikes, January to October 1942

Month	All strikes [1]			Strikes affecting war work [2]		
	Number of strikes beginning in month	Number of workers involved	Number of man-days idle	Number of strikes beginning in month	Number of workers involved	Number of man-days idle
1942						
January	155	32,500	390,000	27	11,605	46,197
February	190	57,000	425,000	50	24,587	118,700
March	240	65,000	450,000	66	34,957	166,680
April	310	55,000	375,000	91	26,255	173,513
May	275	58,000	325,000	125	44,891	137,330
June	350	100,000	550,000	171	78,627	254,653
July	400	87,500	450,000	198	74,812	233,614
August	350	80,000	450,000	195	70,352	266,353
September	290	80,000	450,000	156	71,912	318,892
October	235	60,000	325,000	93	38,321	167,865

[1] Figures are not final but are subject to change as later information is received.

[2] As determined by a Joint Committee of representatives from the War, Navy, and Labor Departments, Maritime Commission, War Labor Board, and War Production Board. The Bureau of Labor Statistics does not participate in the selection of these strikes, but it does furnish the statistics after the Joint Committee determines which strikes affected war work.

ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, OCTOBER 1942

THE United States Conciliation Service during October disposed of 1,096 situations involving 671,703 workers (table 1). The services of this agency were requested by the employers, employees, and other interested parties. Of these situations 107 were strikes and lock-outs involving 24,996 workers; 603 were threatened strikes and controversies involving 308,493 workers. Altogether, 121 disputes were certified during the month to the National War Labor Board, and in 45 cases other agencies assumed jurisdiction. The remaining 220 situations included investigations, arbitrations, requests for information, consultations, etc.

The facilities of the Service were used in 27 major industrial fields, such as building trades, and the manufacture of foods, iron and steel, textiles, etc. (table 2), and were utilized by employees and employers in 45 States, the District of Columbia, Puerto Rico, and Alaska (table 3).

TABLE 1.—*Situations Disposed of by United States Conciliation Service, October 1942, by Type of Situation*

Type of situation	Number	Workers involved
All situations handled	[1] 1,096	671,703
Disputes	710	333,489
Strikes	104	24,916
Threatened strikes	150	92,820
Lock-outs	3	80
Controversies	453	215,673
Other situations	220	29,942
Investigations	24	6,001
Technical investigations and services	5	907
Arbitrations	61	18,683
Requests to conduct consent elections	4	228
Requests for verification of union membership	1	83
Requests for information	16	38
Consultations	74	181
Special services of commissioners	19	3,804
Complaints	16	17
Disputes referred to other agencies during negotiations	166	308,272
To National War Labor Board	121	277,535
To National Labor Relations Board	30	6,855
To other Federal agencies	5	208
To Wage Adjustment Board	10	23,674
To State agencies		

[1] 224 of these cases, involving 166,422 workers, were adjusted subject to arbitration or approval of the wage provisions by the National War Labor Board.

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TABLE 2.—*Situations Disposed of by United States Conciliation Service, October 1942, by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries	876	641,761	220	29,942	1,096	671,703
Building trades	44	42,582	17	796	61	43,378
Chemicals	26	9,288	12	192	38	9,480
Communications	8	17,654	2	50	10	17,704
Domestic and personal	15	5,034	6	578	21	5,612
Electrical equipment	24	12,322	2	401	26	12,723
Food	79	23,757	23	6,444	102	30,201
Furniture and finished lumber	31	6,642	7	393	38	7,035
Iron and steel	162	103,959	24	3,856	186	107,815
Leather	13	2,961	6	20	19	2,981
Lumber	21	7,561	2	41	23	7,602
Machinery	37	19,705	9	228	46	19,933
Maritime	4	955			4	955
Mining	16	7,432			16	7,432
Motion pictures	3	534	1	6	4	540
Nonferrous	34	13,868	8	140	42	14,008
Paper	14	4,993	2	341	16	5,334
Petroleum	17	6,840	7	408	24	7,248
Printing	11	1,559	7	148	18	1,707
Professional	2	2,101	1	1	3	2,102
Rubber	9	6,391	2	800	11	7,191
Stone, clay, and glass	44	7,632	2	9	46	7,641
Textile	50	24,997	24	2,443	74	27,440
Tobacco	10	5,244	2	5,456	12	10,700
Trade	37	16,006	7	450	44	16,456
Transportation	41	35,337	8	542	49	35,879
Transportation equipment	68	240,689	12	3,114	80	243,803
Utilities	15	4,524	6	124	21	4,648
Unclassified	41	11,194	21	2,961	62	14,155

TABLE 3.—*Situations Disposed of by United States Conciliation Service, October 1942, by States*

State	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	876	641,761	220	29,942	1,096	671,703
Alabama	15	8,262	2	4	17	8,266
Alaska	1	500	1	350	2	850
Arizona	10	5,919	2	34	12	5,953
Arkansas	4	716	1	33	5	749
California	63	127,250	15	6,799	78	134,049
Colorado	12	4,773	1	435	13	5,208
Connecticut	11	19,643	10	162	21	19,805
Delaware	3	2,985			3	2,985
District of Columbia	6	843	5	567	11	1,410
Florida	10	7,651	2	5,473	12	13,124
Georgia	5	957	4	205	9	1,162
Idaho	2	58			2	58
Illinois	48	21,541	7	368	55	21,909
Indiana	30	25,283	7	394	37	25,677
Iowa	13	4,687	2	55	15	4,742
Kansas	11	4,558			11	4,558
Kentucky	9	1,637	1	20	10	1,657
Louisiana	10	7,101	1	6	11	7,107
Maine	2	176	1	340	3	516
Maryland	11	13,333	4	249	15	13,582
Massachusetts	24	8,458	14	1,209	38	9,667
Michigan	59	46,427	19	3,234	78	49,661
Minnesota	14	4,534	2	401	16	4,935
Mississippi	12	2,995	1	1	13	2,996

TABLE 3.—*Situations Disposed of by United States Conciliation Service, October 1942, by States*—Continued

State	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
Missouri	25	15,332	10	890	35	16,222
Montana	2	830			2	830
Nebraska	5	1,379			5	1,379
New Hampshire	1	200	1	7	2	207
New Jersey	33	14,703	7	904	40	15,607
New Mexico	3	323			3	323
New York	87	117,841	15	2,058	102	119,899
North Carolina	12	24,692	1	330	13	25,022
Ohio	93	37,062	21	609	114	37,671
Oklahoma	4	603	1	1	5	604
Oregon	12	5,842	2	44	14	5,886
Pennsylvania	81	32,146	8	1,245	89	33,391
Puerto Rico	9	4,098	10	16	19	4,114
Rhode Island	6	5,892	11	111	17	6,003
South Carolina	3	3,250	5	1,449	8	4,699
South Dakota	1	380			1	380
Tennessee	19	5,137	2	126	21	5,263
Texas	17	5,757	7	145	24	5,902
Utah	2	152			2	152
Virginia	8	2,502	4	35	12	2,537
Washington	16	26,899	3	58	19	26,957
West Virginia	11	6,630			11	6,630
Wisconsin	40	9,808	10	1,575	50	11,383
Wyoming	1	16			1	16

NATIONAL EMERGENCY DISPUTES BOARD IN NEW ZEALAND

THE National Emergency Disputes Board was established in New Zealand by the Minister of Labor on September 8, under the Industrial Disputes Emergency Regulations of 1942.[1] The Board consists of five members, all of whom are appointed by the Minister. Workers and employers each have two representatives whose tenure of office is determined by the Minister, and a fifth appointee is chairman. Decisions made by the Board are to be final and binding and the Board may give such directions as are reasonably necessary to carry out its decisions. Under the provisions of regulations, interference with the production of goods, with the maintenance of services essential to the life of the community, or with the effective conduct of the industry or enterprise concerned, is punishable by imprisonment or fine.

The new arbitration machinery supplements the previously existing system established under the terms of the Industrial Conciliation and Arbitration Act and under the emergency antistrike regulations promulgated in October 1939. Provisions of the arbitration law were amended in 1939 to impose heavier penalties on unions, employers, or workers, for participation in strikes. Under the 1939 regulations work stoppages were made an offense, and the Minister of Labor was granted the power to name an emergency disputes committee of seven members to handle disputes in industries where no machinery was maintained.

[1] Data are from New Zealand, Department of Labor, Industrial Disputes Emergency Regulations, Wellington, September 4, 1942 (Serial No. 1942/267); and report of Basil D. Dahl, commercial attaché, United States Legation, Wellington, New Zealand.

Any vacancy in the membership of the new National Emergency Disputes Board does not affect its powers. Three members constitute a quorum at any of its meetings. In case of a tie vote the chairman votes. In the absence of the chairman from any meeting, the members present shall select one of their number to be the chairman for that meeting; in case of a vacancy in the office of chairman, the powers and functions of the office may be exercised by any person authorized by the Minister of Labor to act in the chairman's place.

When a dispute arises which in the opinion of the Board is likely to interfere with the maintenance of essential services or production of essential supplies or the effective conduct of industry, the Board may investigate on its own accord or upon the request of the Minister of Labor. Persons affected or their representatives are to be invited to appear and be heard, and the Board "shall give such decision relating thereto as it considers to be fair and equitable in the circumstances."

If the machinery established under any award, industrial agreement, or other agreement is not used to settle a dispute, the Board may require the body responsible for reviewing differences to endeavor to negotiate a settlement. Should the body fail to reach a settlement, the Board is empowered to determine the matter.

Decisions of the Board must be signed by the chairman and issued in such manner as the Board or the chairman may specify. All decisions are final and binding upon all persons directly affected by the dispute. Directions to place a decision in effect must be complied with at once and any person who fails to comply commits an offense against the regulations. No decision of the Board shall be illegal by reason of conflict with (1) the provisions of any award of the Court of Arbitration or interpretation thereof or (2) any industrial agreement. In the event of such a conflict the decision of the Board prevails.

From time to time the Board may hold an inquiry into any matter before it, for the better exercise of its powers. For the purpose of such an inquiry the provisions of the Commissions of Inquiry Act of 1908 apply, insofar as applicable, as if the Board were a Commission of Inquiry under the 1908 legislation.

If employees of the same employer or of more than one employer discontinue work by reason of a dispute, break their contract of service, refuse or fail to accept work for which they are usually employed, attend a stopwork meeting which is not authorized by the award or industrial agreement, reduce their normal output, or in any way interfere with the production of supplies or the maintenance of essential services, the individuals commit offenses against the regulations. Employers who suspend or discontinue operations, wholly or partially discontinue the employment of workers, refuse or fail to engage workers for any work for which they usually employ workers, or otherwise interfere with the effective conduct of their business or industry, are also guilty of offense against the regulations.

Industrial Accidents and Safety

INDUSTRIAL-INJURY EXPERIENCE IN THE IRON AND STEEL INDUSTRY, 1941 [1]

DISABLING injuries in the iron and steel industry increased during 1941, both in actual numbers and in relation to the number of employee-hours worked. The increases were general throughout the industry. In the group of melting and rolling departments, disabling injuries occurred at the average rate of 11.4 for each million employee-hours worked. In the finishing department group the average was 12.8 per million hours worked. There was, however, a general trend toward injuries of less serious nature than in 1940. The proportion of injuries resulting in death or permanent total disability remained unchanged from that prevailing in 1940, but the percentage resulting in permanent partial disability declined from 10.2 to 8.4. The average time lost because of temporary disabilities also declined, from 28 days per case in 1940 to 26 days in 1941.

Scope and Method of the Survey

For a number of years the Bureau of Labor Statistics has made annual surveys covering the industrial-injury experience of iron and steel manufacturing plants. All of the data compiled for these studies have been voluntarily supplied by cooperating firms upon schedules furnished by the Bureau.

The present study is based upon reports covering 1,852 individual plant departments, which in 1941 employed an average of nearly 580,000 persons. Information for both 1940 and 1941 was secured from 1,643 of these departments. Only the reports of firms which operate furnaces or rolling mills and are primarily engaged in the production of basic iron and steel have been included. The departmental frequency rates presented in this report are based upon all of the reports received and may generally be considered representative of conditions existing in the industry during 1941. Because of variations in the sample covered in different years, however, these rates should not be compared with those reported in previous studies for the purpose of determining trends. For this purpose the percents of change between successive years as shown in this and in previous reports should be used. These percents of change have been based upon the reports of identical departments for each of the years compared, which serves to eliminate the possible effect of variations in the reporting samples.

[1] Prepared in the Bureau's Division of Industrial Injuries by Frank S. McElroy and Harry J. Butler.

Number of departments reporting	1,852
Total number of employees	578,928
Total employee-hours worked (in thousands)	1,193,433
Frequency rate (average number of disabling injuries per million hours worked)	10.3
Severity rate (average number of days lost per thousand hours worked)	1.8
Percent of injuries resulting in—	
Death and permanent total disability	1.5
Permanent partial disability	8.4
Temporary total disability	90.1
Average time lost per disabling injury (days):[1]	
Permanent partial disability	798
Temporary total disability	26
Percent of change from 1940:[2]	
Frequency rate	+13
Severity rate	+4

[1] Each death or permanent total disability is charged at 6,000 days.
[2] Based upon departments that reported for both 1940 and 1941.

Injury Experience of the Industry

On the average, there were slightly more than 10 disabling injuries for every million employee-hours worked during 1941 in the 1,852 departmental units of the iron and steel industry which were included in this study (table 1). These injuries resulted in death or permanent total disability for 1 out of every 3,200 workers in the reporting plants; in permanent partial disability for 1 out of every 580; and in temporary disability, involving an average of 26 days' lost time, for 1 out of every 52. Considering only the actual time lost by injured persons who were eventually able to return to work, the lost time in these plants averaged 622 days during the year for every 1,000 workers. When the standard economic time charges for deaths and permanent impairments are included, the total economic cost of these injuries rises to a total of 3,713 man-days for every 1,000 workers.

In comparison with the injury records of other manufacturing industries, the iron and steel producers had a relatively favorable experience. The average injury-frequency rate of 10.3 was considerably below the average rate of 18.1 for all manufacturing industries, and was lower than the average frequency for practically all other heavy industries.[3]

Employment, employee-hours worked, and injuries in the iron and steel industry each increased considerably in 1941. The volume of injuries, however, grew more rapidly than either employment or employee-hours. Comparison of the reports from 1,643 identical plants which supplied information for both 1940 and 1941 indicated that the average number of employees was 18 percent higher in 1941 than in 1940, hours worked were 19 percent greater, and disabling injuries were 29 percent more numerous. This disproportionate rise in the volume of injuries was reflected in a 13-percent increase in the average injury-frequency rate for these plants.

Although there was a rise of 4 percent in the computed severity rate for 1941 as compared with 1940, there was, nevertheless, evidence of a trend toward somewhat less severe injuries in 1941. In 1940, 11.7 percent of the reported injuries resulted in death or some form of permanent disability. In 1941 only 9.9 percent produced death or

[3] See Monthly Labor Review, September 1942 (p. 501).

permanent disability. Similarly the average time charge for permanent partial disabilities reported in 1941 was 798 days, compared with 835 days for those reported in 1940. The average actual time lost because of temporary injuries also declined from 28 days per case in 1940 to 26 days in 1941.

TABLE 1.—*Injuries and Injury Rates in the Iron and Steel Industry, by Departments, 1941*

Department	Number of departmental units reporting	Number of employees	Number of employee-hours worked (thousands)	Number of disabling injuries				Total days lost	Injury rates [1]	
				Total	Resulting in—					
					Death and permanent total disability [1]	Permanent partial disability	Temporary total disability		Frequency rate	Severity rate
All departments [2]	1,852	578,928	1,193,433	12,347	(9) 179	993	11,175	2,149,548	10.3	1.8
Melting and rolling	640	246,839	508,041	5,801	(3) 87	472	5,242	1,053,768	11.4	2.1
Bessemer converters	12	2,879	5,978	40	(1) 2	6	32	22,920	6.7	3.8
Blast furnaces	70	21,742	45,503	407	24	31	352	199,455	8.9	4.4
Electric furnaces	37	7,709	16,121	442	3	12	427	36,288	27.4	2.3
Open-hearth furnaces	80	37,411	77,629	908	(1) 26	79	803	252,809	11.7	3.3
Bar mills	43	10,342	21,571	350	1	15	334	22,727	16.2	1.1
Cold reduction	41	12,694	27,533	477	1	39	437	48,396	17.3	1.8
Cold rolling	23	2,478	5,777	84	1	7	76	12,855	14.5	2.2
Heavy-rolling mills	70	34,584	71,318	502	(1) 13	65	424	152,599	7.0	2.1
Hot mills	16	6,653	12,951	255	1	15	239	25,395	19.7	2.0
Hot-strip mills	26	14,462	30,423	216	4	34	178	55,264	7.1	1.8
Light-rolling mills	71	21,364	44,152	541	3	49	489	70,550	12.3	1.6
Plate mills	34	12,208	24,655	171	2	25	144	29,680	6.9	1.2
Puddling mills	6	764	1,106	123	1	1	121	9,279	111.2	8.4
Rod mills	31	6,854	14,242	152	1	8	143	11,731	10.7	.8
Sheet mills	39	20,117	39,163	471	1	30	440	39,823	12.0	1.0
Tube mills	41	34,578	69,918	662	3	56	603	63,997	9.5	.9
Finishing	341	86,524	177,400	2,275	(1) 13	181	2,081	256,824	12.8	1.4
Armor plate	3	1,555	3,022	21	(1) 1	7	13	9,295	6.9	3.1
Axle works	2	489	950	0	0	0	0	0	0	0
Bolts and nuts	16	6,341	12,789	175	0	19	156	15,883	13.7	1.2
Car wheels	5	1,540	3,041	23	1	1	21	6,938	7.6	2.3
Cold drawing	24	5,507	12,067	250	1	25	224	36,671	20.7	3.0
Fabricating shops	23	8,031	16,538	189	3	14	172	36,509	11.4	2.2
Forge shops	75	11,774	24,455	461	5	20	436	54,458	18.9	2.2
Foundries	32	8,417	17,154	148	1	13	134	15,596	8.6	.9
Galvanizing and tinning	57	14,995	31,207	292	0	15	277	20,106	9.4	.6
Nails and staples	17	2,102	4,119	43	0	6	37	2,764	10.4	.7
Stamping	18	5,305	10,509	170	0	26	144	18,187	16.2	1.7
Wire drawing	50	17,374	35,436	455	1	35	419	39,461	12.8	1.1
Wire springs	5	1,399	2,801	15	0	0	15	404	5.4	.1
Woven-wire fence	14	1,695	3,311	33	0	0	33	552	10.0	.2
Service and maintenance	629	128,812	267,585	1,720	(4) 43	207	1,470	462,441	6.4	1.7
Clerical and sales	231	26,680	55,327	62	0	1	61	1,857	1.1	(4)
Electrical	87	12,394	25,807	126	9	6	111	61,730	4.9	2.4
Mechanical	172	68,683	142,840	1,186	(4) 21	166	999	275,181	8.3	1.9
Ore docks and yards	5	284	672	8	0	1	7	503	11.9	.7
Power houses	36	4,625	9,591	33	1	0	32	6,742	3.4	.7
Yards and transportation	98	16,146	33,348	305	12	33	260	116,428	9.1	3.5
Miscellaneous labor	200	99,697	205,372	1,824	(1) 35	105	1,684	335,405	8.9	1.6
Not elsewhere classified	42	17,056	35,035	727	1	28	698	41,110	20.8	1.2
Coke ovens	34	12,648	26,498	84	6	9	69	56,043	3.2	2.1

[1] Figures in parentheses show the number of cases of permanent total disability included.
[2] The frequency rate is the average number of disabling injuries for each million employee-hours worked. The severity rate is the average number of days lost for each thousand employee-hours worked. The standard time-loss ratings for fatalities and permanent disabilities are those approved by the American Standards Association, 1937.
[3] Except coke-oven departments.
[4] Less than 0.05.

Injury Experience by Departments

MELTING AND ROLLING DEPARTMENTS

Disabling work injuries reduced the productive capacity of 1 in every 43 employees in the 640 melting and rolling departments for which reports were received in 1941. As a group these departments had an average of 11.4 lost-time injuries for each million employee-hours worked. Comparison with the 1940 record of 577 of these departmental units, which reported for both years, indicated that melting and rolling employment averaged 14 percent higher in 1941 than in 1940, employee-hours worked increased 15 percent, and the total number of disabling injuries rose 26 percent, resulting in a 13-percent rise in the injury-frequency rate for the group (table 2).

Nearly 10 percent of the injuries reported in the melting and rolling departments resulted in death or some form of permanent disability (table 3). This, however, was somewhat of an improvement in comparison with 1940, in which year the proportion of fatal and permanent disabilities amounted to 11.3 percent. Comparison of the two years also indicated some reduction in the general severity of the temporary injuries experienced in these departments. In 1941 the average time lost on account of each temporary disability was 26 man-days as compared with an average of 28 man-days in 1940.

Among the individual melting and rolling departments the 6 puddling-mill units had the most strikingly adverse experience. In these units disabling work injuries occurred at the rate of 111.2 per million employee-hours worked. This frequency rate was fully a third higher than the rate for comparable departmental units in 1940, and was over 4 times as high as the 1941 rate for any other departmental group of the iron and steel industry. The great majority of these injuries, however, were of temporary nature, and in partial compensation for the increased injury frequency the actual time lost because of these temporary injuries declined from an average of 16 days in 1940 to an average of 12 days in 1941.

The electric-furnace departments with an average of 27.4 disabling injuries for each million employee-hours worked ranked second highest among all of the iron and steel departments in frequency of injuries during 1941. This frequency rate also represented a substantial increase (11 percent) over the injury frequency prevailing in comparable departmental units in 1940. The proportion of injuries resulting in death in the electric-furnace departments was higher in 1941 than in 1940 and as a consequence the severity rate based upon economic time charges showed an increase of 9 percent. The proportion of permanent impairments declined, however, as did the average time lost because of temporary injuries.

Three other departmental groups among the melting and rolling units had average frequency rates of over 15 for the year 1941. In the hot mills there were 19.7 disabling injuries for each million man-hours worked; in the cold-reduction departments, 17.3; and in the bar mills, 16.2 injuries. Each of these frequency rates was considerably higher than the corresponding rate for identical departments in the previous year.

Average frequency rates representing fewer than 15 disabling injuries per million employee-hours worked, but still somewhat above the average for all melting and rolling departments, prevailed in the cold-rolling departments (14.5), the light-rolling mills (12.3), the sheet mills (12.0), and the open-hearth furnace departments (11.7). In each of these departmental groups comparison of the average injury frequency in 1941 with that for identical units in 1940 indicated a rise of 10 or more percent in the number of disabling injuries charged to each million man-hours worked. The cold-rolling and the light-rolling mill groups each showed a substantial reduction in the proportion of injuries resulting in death or permanent disability. Similarly there was a decrease in the average time lost because of temporary injuries. In the sheet mills the relative proportions of permanent and temporary disabilities in 1941 were practically unchanged from the ratios of 1940. Temporary injuries in these mills, however, tended to be slightly more severe in 1941 than they were in 1940. Contrary to the general trend, the open-hearth furnace units had greater proportions of fatal and permanent disability cases in 1941 than in 1940. The average time lost for each temporary injury in this departmental group declined, however, from 35 days in 1940 to 32 days in 1941.

The bessemer-converter departments had the lowest frequency rate (6.7) within the melting and rolling group. This rate, however, was only slightly lower than those of the plate mills (6.9), the heavy-rolling mills (7.0), and the hot-strip mills (7.1). The blast furnaces, the tube mills, and the rod mills, with frequency rates of 8.9, 9.5, and 10.7, respectively, also had frequency rates lower than the average for the entire group of melting and rolling departments. These 7 departmental groups included 51 percent of the total employment and employee-hours worked in all of the melting and rolling departments, but accounted for only 37 percent of the disabling injuries. Comparison of the 2-year records for units in these 7 departmental groups indicated that the 1941 frequency rate for the heavy-rolling mills was unchanged from 1940, that for the hot-strip mills was 7 percent lower than in 1940, while those of the other five groups ranged from 2 to 17 percent higher than in 1940. The blast-furnace, hot-strip mill, rod-mill, and tube-mill departments reported proportionately fewer fatal and permanent disability cases in 1941 than in 1940. Similarly the trend toward less severe injuries was evident in the lower average time lost because of temporary disabilities in the bessemer-converter, blast-furnace, rod-mill, and tube-mill departments.

FINISHING DEPARTMENTS

The finishing departments as a group had a somewhat higher average injury frequency (12.8) than did the melting and rolling departments. In comparison with the records of identical units for the previous year the finishing departments in 1941 had 27 percent more employees, 27 percent more employee-hours worked, and 38 percent more disabling injuries than in 1940. This greater relative advance in the volume of injuries resulted in a 15-percent rise in the frequency rate for the group. The proportionate number of fatal and permanent-disability cases reported by the finishing departments, however,

decreased from 10.8 percent of all reported disabilities in 1940 to 8.4 percent in 1941. On the other hand, the average time lost because of temporary disability rose from 25 days per case in 1940 to 26 days in 1941.

The outstanding record among the finishing departments surveyed was that of two axle works in which nearly a million employee-hours were worked during 1941 without a single disabling injury. Although a frequency rate based upon only two establishments with a total exposure of less than a million employee-hours may not be considered representative, a record such as this is highly significant as an indicator of the results which can be achieved through close attention to safety. The achievement of these two establishments is rendered even more impressive by the fact that it was accomplished in spite of increased activity in 1941 which carried their average employment 35 percent above that for 1940 and raised their total employee-hours worked 37 percent above the corresponding exposure for the previous year.

In only 3 of the 14 groups of finishing departments were the average frequency rates in excess of 15. Injuries occurred most frequently in the cold-drawing departments which reported an average of 20.7 disabling injuries for every million employee-hours. In the forge shops the average was 18.9 disabling injuries per million employee hours, and in the stamping departments it was 16.2. The units which reported for both 1940 and 1941 in each of these departmental groups indicated substantial increases in employment and in employee-hours worked, accompanied by a rising volume of disabling injuries. In both the cold-drawing and forge-shop groups the rise in injuries was proportionately greater than the increase in hours, resulting in higher frequency rates for 1941 than in 1940. On the other hand, the relative increase in injuries in the stamping departments was less than the increase in employee hours, which resulted in a lower frequency rate in 1941 than in 1940. The general trend toward less severe injuries also appeared in the comparison of the 2-year records of identical reporting units in these departmental groups. Both the forge shops and the stamping departments had proportionately fewer fatal and permanent disabilities in 1941 than in 1940. Similarly, the average time lost because of temporary disabilities was lower in 1941 than in 1940 for each group. The cold-drawing departments had a greater relative volume of permanent injuries in 1941, but had a lower average time loss because of temporary injuries than in 1940.

The medium range of frequency rates in the finishing-department group included the bolts and nuts departments, which averaged 13.7 disabling injuries for each million employee-hours worked; the wire-drawing departments, which averaged 12.8; the fabricating shops, averaging 11.4; the nails and staples departments with an average of 10.4; and the woven-wire fence departments for which the average was 10. The 2-year comparison of identical plants showed substantial increases in employment, man-hours worked, and volume of injuries for each of these groups. In the fabricating shops and the woven-wire fence departments, however, the volume of injuries expanded proportionately less than did man-hours worked, which resulted in lower frequency rates for these groups in 1941 than in 1940. The

reverse was true in each of the other three departmental groups. With the exception of the bolts and nuts departments, each of these departmental groups conformed to the general trend toward proportionately fewer fatal and permanent disabilities in 1941 than in 1940. Contrary to the general trend, however, all five groups had higher average time losses from temporary injuries in 1941 than in 1940.

Five of the finishing-department groups, in addition to the axle works, had average frequency rates of less than 10 in 1941. These rates were 9.4 for the galvanizing and tinning departments; 8.6 for the foundries; 7.6 for the car-wheel departments; 6.9 for the armor-plate departments; and 5.4 for the wire-springs departments. No comparison of the 2-year record of the armor-plate units was possible. In the other groups the comparison showed a considerable increase in the volume of employment, man-hours, and injuries. Injuries expanded more rapidly than employee-hours worked in each instance, resulting in frequency rates which were higher than those prevailing in 1940.

SERVICE AND MAINTENANCE DEPARTMENTS

Excepting only the group of ore docks and yards, which cannot be considered representative because of the small reporting sample, each of the service and maintenance department groups had average frequency rates indicating the occurrence of fewer than 10 disabling injuries for each million employee-hours worked. The power-house group and the yards and transportation departments each had a lower frequency rate in 1941 than in 1940 despite the greater injury possibilities arising from increased employment and a greater volume of employee-hours worked. The clerical and sales departments had an average frequency rate of only 1.1 in 1941, but on the basis of comparable reports this rate represented a 42-percent increase over the corresponding rate for the previous year. The frequency rates of 4.9 for the electrical-department group and 8.3 for the mechanical departments similarly were somewhat higher than the rates for identical units of these groups in 1940. All of the service and maintenance department groups, except the mechanical departments, reported proportionately fewer fatal and permanent disabilities in 1941 than in 1940.

TABLE 2.—*Changes in Exposure, Disabling Injuries, and Injury Rates for 1,643 Identical Departments in the Iron and Steel Industry, 1940–41*

Department	Number of departmental units reporting	Percent of change in—					
		Number of employees	Employee-hours worked	Number of injuries	Total days lost	Frequency rate	Severity rate
All departments [1]	1,643	+18	+19	+29	+22	+13	+4
Melting and rolling	577	+14	+15	+26	+20	+13	+6
Bessemer converters	12	+5	+5	+21	+92	+17	+92
Blast furnaces	65	+12	+12	+18	+28	+7	+19
Electric furnaces	33	+39	+38	+45	+43	+11	+9
Open-hearth furnaces	75	+19	+20	+31	+39	+14	+26
Bar mills	38	+20	+28	+34	−18	+9	−41
Cold reduction	36	+10	+14	+38	+9	+28	−5
Cold rolling	19	−26	−10	+24	+6	+32	+16
Heavy-rolling mills	65	+12	+14	+14	+30	0	+19
Hot mills	11	+28	+34	+43	+70	+13	+34
Hot-strip mills	24	+1	−1	−9	−27	−7	−27
Light-rolling mills	64	+13	+13	+22	−19	+10	−30
Plate mills	30	+20	+24	+32	−12	+10	−33
Puddling mills	5	+22	+45	+63	+87	+33	+76
Rod mills	28	+26	+25	+26	−50	+2	−63
Sheet mills	36	+12	+9	+19	+23	+11	+15
Tube mills	36	+10	+9	+15	−19	+6	−27
Finishing [1]	301	+27	+27	+38	+13	+15	−16
Axle works	2	+35	+37	−100	−100	−100	−100
Bolts and nuts	16	+37	+34	+46	+68	+17	+82
Car wheels	5	+34	+33	+43	+76	+16	+65
Cold drawing	23	+25	+31	+41	+50	+14	+28
Fabricating shops	20	+34	+32	+27	+8	−7	−26
Forge shops	63	+38	+41	+45	+39	+7	−3
Foundries	29	+21	+23	+42	+28	+25	+7
Galvanizing and tinning	49	+18	+20	+33	−56	+17	−65
Nails and staples	16	+21	+17	+53	−67	+43	−73
Stamping	11	+38	+37	+30	−25	−10	−53
Wire drawing	47	+19	+16	+31	−9	+18	−24
Wire springs	5	+47	+44	+73	+18	+52	−33
Woven-wire fences	14	+19	+13	+9	−86	−4	−88
Service and maintenance	570	+17	+18	+24	+11	+8	−8
Clerical and sales	216	+16	+16	+52	−84	+42	−87
Electrical	76	+17	+19	+41	+75	+28	+70
Mechanical	154	+16	+18	+24	+14	+8	−4
Ore docks and yards	4	+12	+13	+75	−94	+71	−94
Power houses	30	+28	+27	+7	+15	−22	−15
Yards and transportation	90	+21	+21	+14	−16	−7	−34
Miscellaneous labor	178	+24	+24	+36	+55	+16	+40
Not elsewhere classified	17	−1	+11	+23	−39	+13	−46

[1] Includes data for departments not shown separately because of insufficient coverage.

TABLE 3.—*Disability Distribution and Average Days Lost Per Disability for 1,643 Identical Departments in the Iron and Steel Industry, 1940–41*

Department	Number of departmental units reporting	Percent of injuries resulting in—						Average days lost per disability			
		Death and permanent total disability		Permanent partial disability		Temporary total disability		Permanent partial disability		Temporary total disability	
		1941	1940	1941	1940	1941	1940	1941	1940	1941	1940
All departments [1]	1,643	1.5	1.5	8.4	10.2	90.1	88.3	798	835	26	28
Melting and rolling	577	1.6	1.6	8.3	9.7	90.1	88.7	833	830	26	28
Bessemer converters	12	5.3	0	15.8	3.3	78.9	96.7	1,667	600	28	41
Blast furnaces	65	6.2	4.7	7.9	12.9	85.9	82.4	1,398	1,040	34	36
Electric furnaces	33	.7	.4	2.8	3.4	96.5	96.2	821	975	20	29
Open-hearth furnaces	75	3.1	2.4	9.3	8.9	87.6	88.7	885	960	32	35
Bar mills	38	.4	.5	4.3	8.6	95.3	90.9	488	769	22	19
Cold reduction	36	.2	.7	8.0	10.9	91.8	88.4	777	692	23	28
Cold rolling	19	1.3	1.7	9.2	20.7	89.5	77.6	707	375	26	32
Heavy-rolling mills	65	2.8	2.7	13.6	10.4	83.6	86.9	940	682	34	31
Hot mills	11	0	0	4.6	5.3	95.4	94.7	950	300	16	16
Hot-strip mills	24	1.0	1.9	16.6	17.1	82.4	81.0	689	733	43	34
Light-rolling mills	64	.6	1.5	9.2	12.2	90.2	86.3	862	832	24	26
Plate mills	30	.8	1.2	16.4	13.3	82.8	85.5	390	1,045	37	35
Puddling mills	5	1.0	0	1.0	2.6	98.0	97.4	1,800	600	12	16
Rod mills	28	.7	1.8	4.0	7.3	95.3	90.9	350	988	21	24
Sheet mills	36	.2	.3	5.9	6.1	93.9	93.6	840	702	24	23
Tube mills	36	.5	.6	7.9	8.4	91.6	91.0	564	958	21	22
Finishing [1]	301	.6	1.0	7.8	9.8	91.6	89.2	731	798	26	25
Axle works	2	0	0	0	0	0	100.0	0	0	0	53
Bolts and nuts	16	0	0	10.9	7.4	89.1	92.6	624	521	26	16
Car wheels	5	4.3	0	4.3	15.4	91.4	84.6	300	525	30	54
Cold drawing	23	.4	1.4	10.1	5.5	89.5	93.1	1,062	338	19	26
Fabricating shops	20	1.4	1.9	9.2	9.7	89.4	88.4	1,038	1,305	30	22
Forge shops	63	1.1	.8	4.5	5.8	94.4	93.4	755	1,086	21	24
Foundries	29	.7	1.2	8.8	10.5	90.5	88.3	392	383	34	23
Galvanizing and tinning	49	0	1.8	6.0	11.4	94.0	86.8	723	1,000	32	35
Nails and staples	16	0	5.3	15.0	21.1	85.0	73.6	300	425	25	23
Stamping	11	0	0	12.5	17.9	87.5	82.1	1,080	1,430	15	34
Wire drawing	47	.2	.7	7.9	12.2	91.9	87.1	626	653	27	25
Wire springs	5	0	0	0	25.0	100.0	75.0	0	300	27	11
Woven-wire fences	14	0	0	0	10.0	100.0	90.0	0	1,200	17	15
Service and maintenance	570	2.4	2.5	12.1	13.9	85.5	83.6	760	934	31	34
Clerical and sales	216	0	3.6	1.7	10.7	98.3	85.7	500	1,000	19	28
Electrical	76	7.2	1.5	5.4	13.8	97.4	84.7	525	589	40	41
Mechanical	154	1.7	1.9	14.3	13.6	84.0	84.5	721	877	29	31
Ore docks and yards	4	0	100.0	25.0	0	75.0	0	300	0	30	0
Power houses	30	3.4	0	0	18.5	96.6	81.5	0	900	21	52
Yards and transportation	90	3.6	4.6	9.6	15.0	86.8	80.4	1,070	1,203	36	39
Miscellaneous labor	178	1.9	.8	5.9	7.5	92.2	91.7	792	750	25	26
Not elsewhere classified	17	0	.6	7.5	18.2	92.5	81.2	1,009	741	14	25

[1] Includes data for departments not shown separately because of insufficient coverage.

ACCIDENT PRONENESS IN FACTORIES, GREAT BRITAIN

INDUSTRIAL accidents have considerably increased in Great Britain during the war, partly as a result of the employment of greater numbers of people (many of whom are inexperienced) on work of a dangerous nature. In view of the importance of efforts to lessen the number of accidents the Industrial Health Research Board of the Medical Research Council, in accordance with the recommendation of the Select Committee on National Expenditure, has been carrying out researches into the main problems of health and efficiency among

industrial workers. A recent report by the Board, on the personal factor in accidents,[1] stresses the importance of individual differences which make the responses of different persons dissimilar, when exposed to the same working conditions, whether the latter are good or bad.

There are two points of view in considering factory accident causation, namely, that of the operation and that of the operative. The Factories Act and regulations of the Ministry of Labor deal with the inherent dangers of the operation itself, with the view of reducing general accident liability to the lowest limit compatible with efficient production. Advice about dangerous practices is also given by the factory inspectors and the Royal Society for the Prevention of Accidents, which is now part of the Ministry of Labor. The report under review is written mainly from the point of view of the operative, and embodies the results of some of the investigations of the Industrial Health Research Board regarding accident proneness among industrial workers.

General factors affecting the industrial-accident rate include excessive hours of work; environmental conditions, such as heating, lighting, and ventilation; inexperience; age; speed of production; organization of the work processes; attitude of the management toward accidents; and attitude of the workpeople. Experience during the last war showed that excessively long hours resulted in an increase in the accident rate and that after making allowance for other factors, there was evidence that fatigue played a considerable part in accidents. Atmospheric conditions also were found to play an important part in accident rates, in both munitions works and coal mines, in the war of 1914–18, as the accident rate increased with a rise in temperature, particularly if there was insufficient ventilation. Inadequate lighting and a lighting system which produces glare were other environmental factors producing an increased accident rate. Inexperience, either in those not used to factory life or in those not used to the particular job, is a fruitful cause of accidents; and young people, aside from their inexperience, are more likely than older people to sustain accidents. Speed of work, which is necessary in modern industry and particularly in wartime, is a common cause of accidents, especially as the capacity for rapid movement begins to fall off at about the age of 40. This decrease in capacity for rapid movement means not that a worker's real capacity for work falls off at approximately the age of 40 but that his general ability to work with speed begins to decline at that age. The causes of accidents which are external to the worker are to a considerable degree controllable.

Accident Proneness

In addition to the causes of accidents mentioned above, there remains a factor in accidents which has been receiving increasing recognition. It is apparent from everyday experience and the examination of accident records that, under the same conditions of exposure and environment, some people have more accidents than others. Although this difference in accident rates among individuals might be attributed to different causes—such as chance or the effect

[1] Medical Research Council, Industrial Health Research Board. The Personal Factor in accidents. London, 1942 (Emergency report No. 3).

of a first accident on the subject's liability to others—analysis of accident data has shown the special importance of the factor known as "accident proneness." In the first statistical studies by the Board of the accident records of industrial workers, to determine reasons for the unequal distribution of accidents among persons exposed to equal risks, three hypotheses were examined: First, that there is a chance distribution of accidents; second, that having an accident may affect the chance of having another either favorably or unfavorably, by making the person more careful or more nervous; or third, that individuals are initially unequal in their liability to sustain accidents under equal conditions of risk. Further studies, covering a large number of industrial and transport groups, have repeatedly shown that the majority of the accidents occurred among relatively few individuals.

In general the accidents analyzed have been minor ones, such as cuts and bruises, since serious accidents are not sufficiently frequent in any single department during an observational period of reasonable length to yield adequate data for testing the hypothesis of unequal liability. An analysis of the accident records of about 14,000 workers in several different trades, however, showed that those persons having an unusual number of minor accidents also had an unusual number of major accidents. This shows that any conclusions arrived at as to minor accidents will apply also to major accidents, and that efforts to prevent persons specially susceptible to accidents from incurring danger will protect them from both minor and major accidents. In comparing sickness and accident records it was found that those individuals who often report being sick have, on the whole, a higher accident rate than others. Young and inexperienced workers were found to be more liable to accidents than the mature and experienced, but when the accidents of groups of equal age and experience were analyzed, it was found that the majority of the accidents were limited to relatively few of the subjects.

Evidence from all the groups studied showed that accident proneness is a relatively stable factor, appearing in all periods of exposure and in different kinds of accidents. Although there are other factors in the accident rate, there is a close enough relation between the number of accidents sustained by an individual in each of two periods to prove that some set of factors is constantly tending to make certain people more likely to have accidents than others.

For nearly 20 years investigators have been experimenting to find some test, or group of tests, which would serve as a means of determining those persons specially liable to accidents. Experience shows that in a given department the probable number of accident-prone persons ranges from about 10 to 25 percent of the group. One test called "aesthetokinetic," involving rapid and accurate hand and eye coordination, was used first with 600 subjects. Among these persons, those who were below the average in the tests had a subsequent accident rate 48 percent higher than those who were above the average, and the accident rate of the worst 25 percent in the tests was 51 percent greater than that of the remaining 75 percent. A later series of tests of 1,800 persons, including the coordination and other tests which were not so closely associated with accident proneness, showed that the accident rate of the worst in the "aesthetokinetic" tests was approximately twice as great as those of the best. The groups studied

in the research included transport workers, air pilots, railway men, and men employed in engineering occupations. The "aesthetokinetic" tests measure the capacity to respond accurately to various sensory stimuli within a controlled time interval. It is possible for persons who have had little previous training in psychology to give these tests, provided certain precautions are taken to insure proper control. If this is done, the report states, there is nothing to prevent the practical use of these tests in selecting for dangerous occupations, persons with a specially low degree of accident proneness.

The tests are valid for use among skilled workers only, as it has not been possible to show a relation between these or any other tests and the accident rate in unskilled occupations. These tests when used in the skilled occupations show not only a lower accident rate but also a higher proficiency rate among those who do well in the test. Since the "aesthetokinetic" tests measure certain factors included both in proficiency and accident proneness in skilled occupations, it is considered possible that accident proneness in an occupation is inversely related to proficiency in that occupation, although the direct evidence on this question is still conflicting. Quantity production is still the main basis in certain occupations for judging proficiency. If in the process of manufacture there is some particular danger point, this will be encountered more often by the more productive workers than by the others, so that their exposure to the particular danger point is more frequent. This increases the accident liability of the more productive workers, and as a result, though they may be less accident prone, this advantage may be partly lost and they may have an undue number of accidents. The fact that it has not been possible by means of the tests to reach any definite conclusions regarding general industrial proficiency and accident rate may be due to errors of this kind. However, since the data provided by the tests involve both accident proneness and industrial proficiency in the skilled occupations requiring manipulative ability, it appears evident that if the tests were practically applied they would tend to select persons having a low accident rate associated with a high rate of proficiency.

The reason why no relation has been found in these tests to either accident proneness or proficiency in unskilled occupations, it was considered, might be that unskilled occupations are dependent less on accurate and rapid coordination and more on a willingness to perform a repetitive process without finding it irksome.

The advantage gained by the use of psychological tests for the prediction of accident proneness instead of basing it on previous accident records is that this method makes it possible to place the accident-prone workers in the less-dangerous occupations; if this method were extensively carried out it might well have the effect of lowering the general accident rate.

Housing Conditions

HOUSING PROVIDED IN 138 DEFENSE AREAS [1]

Summary

HOUSING needs of war workers have determined the location of an increasing share of the dwelling units built since the war housing program was started in the summer of 1940. Seven-tenths of all dwelling units, public and private, which were started in nonfarm areas during the second quarter of 1942 were in 138 selected defense-housing areas [2] included in the Defense Housing Survey recently completed by the Bureau of Labor Statistics. These same areas accounted for only half of the nonfarm total in 1940. Almost two-thirds of the privately financed nonfarm homes were in the 138 areas in the second quarter of 1942, as contrasted with less than half of the total in 1940. About seven-tenths of all publicly financed nonfarm units [3] started during 1940, 1941, and the first half of 1942 were in these areas, the proportion being slightly higher in 1942 than earlier in the period.

With seasonal variation taken into account, the rate of construction of privately financed units rose steadily through 1940 and much of 1941 and then slowed down. Priorities regulations became a major influence during the second quarter of 1942, when the number of new privately built units dropped about 45 percent from the total for the corresponding quarter of 1941. Totals for July and August 1942 were 57 percent below those for the same months of last year. Privately financed units constructed per 10,000 persons living in these areas in 1940 varied considerably from one geographic division to another, and were 4 times as great in the Pacific States as in New England. Rates were highest in the divisions in which industrial activities were relatively new as a major element in the total economy, and lowest in the divisions having a long industrial history. While high construction rates reflected an acute housing shortage in the Pacific States area in 1940, the severe housing inadequacy in the South Atlantic and West South Central States appeared somewhat later.

Dwelling units with permit valuations or estimated construction costs of $3,000 to $3,999 were most common, accounting for more than a quarter of all privately financed units in these areas. In New England and the East North Central States the most frequently reported cost was from $4,000 to $4,999. On the other hand, in both the South Atlantic and East South Central States the largest group of units was in the cost class of $2,000 to $2,999. About a sixth of the

[1] Prepared by Alexander C. Findlay, of the Bureau's Division of Construction and Public Employment.
[2] A list of the areas included is given on p. 1205.
[3] Housekeeping units only, including demountable and temporary units and dormitory apartments, but excluding dormitories, trailers, and portable units.

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units in the 138 areas combined were valued at less than $2,000 and somewhat more at $5,000 or over. Units with permit valuations of less than $500 formed only about a fortieth of the total, but comprised more than one-tenth of those started in the East South Central and West South Central States.

The valuation pattern shifted downward as more war-time restrictions were placed on residential buildings. Permit valuations of $5,000 or more were reported for over 20 percent of the new privately financed units in 1940 and 1941, as contrasted with less than 9 percent of those started from April through August 1942 when the WPB order stopping nonessential construction was in effect.

Data collected on additional units resulting from conversions are inconclusive because of seriously incomplete records in a large number of the areas. According to available information, there was a net increase of about 50,000 dwelling units from conversions; almost 60 percent of these occurred in the Middle Atlantic States. Comparisons among geographic divisions reflect differences in the completeness of the data fully as much as actual differences in operations. Conversions were apparently maintained at a more uniform rate throughout the period than was new construction. As building materials became scarce, Federal housing officials adopted policies encouraging the alteration of existing dwellings to provide additional accommodations for war workers.

Purpose and Scope of the Survey

The Defense Housing Survey was conducted by the Bureau of Labor Statistics, in cooperation with the Work Projects Administration, at the request of the Division of Defense Housing Coordination (now succeeded by the National Housing Agency). It was made in 148 defense areas selected by the Housing Agency, in order to obtain data on the number of new dwelling units financed with private funds and the net increase in private dwelling units resulting from conversions and demolitions.

Each area consisted of a center of war activity (usually an industrial center, but in some cases the site of military activities) and the surrounding territory which could be regarded as actually or potentially effective in housing local workers. The areas were defined prior to the start of field work, and then were reviewed locally by a field supervisor when the field work was started. Necessary revisions in the territory to be covered were made in consultation with the National Housing Agency.

Data were obtained by field workers from permit records for all places using building permits. Lapsed and canceled permits were designated when they could be identified and omitted from tabulation, but transcription of current data during the latter part of the survey followed permit issuance too closely to reveal lapses and cancelations. In nonpermit places information on units started was secured from assessment records, from local public officials, and from those unofficial sources found by local investigation to be most dependable, mainly contractors, promotional builders, real-estate agents, building-material dealers, financing organizations, and utilities.

The period covered by the survey was the 32 months from January 1940 to August 1942, inclusive. Reports for the entire period have

been issued for 138 of the areas, and the present report summarizes data for these areas.

The 138 areas had a 1940 population of 43,285,323 persons, or approximately a third of the national total. The proportion of total population living in the selected defense areas varied in different sections of the country, and ranged from about a sixth in the East South Central and West North Central States to almost three-fifths in New England. Population of individual areas varied from 8,446 for East Greenwich, R. I., to 3,995,919 for Brooklyn-Queens, N. Y. The number of places exceeded 100 in the Pittsburgh area and was close to 100 for several other areas, but more commonly was from 20 to 40.

The 138 areas, and the 1940 populations for the areas within each geographic division, were:

New England (4,919,591)

Bath, Maine.
Boston, Mass.
Bridgeport, Conn.
East Greenwich, R. I.
Greenfield, Mass.
Hartford, Conn.
Lynn, Mass.
Meriden, Conn.
Middletown, Conn.
New Britain, Conn.
New Haven, Conn.
New London, Conn.
Newport, R. I.
Portland, Maine.
Providence, R. I.
Quincy, Mass.
Springfield, Mass.
Springfield, Vt.
Waterbury, Conn.
Worcester, Mass.

Middle Atlantic (14,633,013)

Albany, N. Y.
Aliquippa, Pa.
Allentown, Pa.
Berwick, Pa.
Brooklyn-Queens, N. Y.
Buffalo, N. Y.
Camden, N. J.
Chester, Pa.
Coatesville, Pa.
Corry, Pa.
Dover, N. J.
Ellwood City, Pa.
Elmira, N. Y.
Erie, Pa.
Freeport, L. I., N. Y.
Harrisburg, Pa.
Jersey City, N. J.
Massena, N. Y.
Newark, N. J.
New Brunswick, N. J.
Paterson, N. J.
Penns Grove, N. J.
Philadelphia, Pa.
Phillipsburg, N. J.
Pittsburgh, Pa.
Pottstown, Pa.
Schenectady, N. Y.
Sidney, N. Y.
Syracuse, N. Y.
Titusville, Pa.
Utica, N. Y.
Williamsport, Pa.
York, Pa.

South Atlantic (4,334,517)

Annapolis, Md.
Atlanta, Ga.
Baltimore, Md.
Charleston, S. C.
Charleston, W. Va.
Columbus, Ga.
Elkton, Md.
Jacksonville, Fla.
Macon, Ga.
Morgantown, W. Va.
Newport News, Va.
Norfolk, Va.
Pensacola, Fla.
Pulaski, Va.
Richmond, Va.
St. Petersburg, Fla.
Savannah, Ga.
Tampa, Fla.
Washington, D. C.
Wilmington, Del.
Wilmington, N. C.

East North Central (7,370,969)

Akron, Ohio.
Anderson, Ind.
Ann Arbor, Mich.
Canton, Ohio.
Cincinnati, Ohio.
Cleveland, Ohio.
Columbus, Ohio.
Connersville, Ind.
Detroit, Mich.
East St. Louis, Ill.
Fort Wayne, Ind.
Hamilton, Ohio.
Indianapolis, Ind.
Lansing, Mich.
La Porte, Ind.
Midland, Mich.
Muskegon, Mich.
Pontiac, Mich.
Rockford, Ill.
Saginaw, Mich.
Sandusky, Ohio.
South Bend, Ind.
Warren, Ohio.
Youngstown, Ohio.

East South Central (1,739,976)

Birmingham, Ala.
Florence, Ala.
Gadsden, Ala.
Jackson, Tenn.
Louisville, Ky.
Memphis, Tenn.
Mobile, Ala.
Nashville, Tenn.
Pascagoula, Miss.

West North Central (2,362,975)

Burlington, Iowa.
Davenport, Iowa.
Kansas City, Mo.
Omaha, Nebr.
St. Louis, Mo.
Wichita, Kans.

West South Central (2,739,634)

Abilene, Tex.
Beaumont, Tex.
Dallas, Tex.
Fort Worth, Tex.
Freeport, Tex.
Galveston, Tex.
Houston, Tex.
Little Rock, Ark.
New Orleans, La.
Orange, Tex.
Port Arthur, Tex.
San Antonio, Tex.
Shreveport, La.
Texarkana, Tex.
Tulsa, Okla.

Mountain (803,134) [1]

Denver, Colo.
Odgen, Utah.
Phoenix, Ariz.
Salt Lake City, Utah.

Pacific (4,381,514)

Los Angeles, Calif.
Portland, Oreg.
San Bernardino, Calif.
San Diego, Calif.
Seattle, Wash.
Tacoma, Wash.

[1] Includes estimated 1940 population for Phoenix, Ariz., area; all other area populations used are those of sixteenth decennial census.

Unless specifically stated otherwise, subsequent references to any geographic division or to the Nation mean the Defense Housing Survey areas within the geographical unit under discussion.

New Privately Financed Dwelling Units

Dwelling units in the 138 areas were approximately half of all privately financed nonfarm units constructed within the country for each quarter of 1940 and 1941, and increased from that figure to almost two-thirds during the second quarter of 1942. These comparisons, presented in table 1, are based on the quarterly estimates of private nonfarm construction made by the Bureau of Labor Statistics.

TABLE 1.—*New Privately Financed Dwelling Units in Nonfarm Areas and in 138 Defense Areas, January 1940 to June 1942, by Quarters*

Period	Number of privately financed dwelling units		138 defense areas as percent of total nonfarm
	Total nonfarm	138 defense areas	
1940	529,581	256,484	48.4
First quarter	98,738	48,144	48.7
Second quarter	153,262	72,825	47.5
Third quarter	153,903	74,038	48.1
Fourth quarter	123,678	61,477	49.7
1941	619,487	319,958	51.6
First quarter	122,844	64,938	52.9
Second quarter	190,801	98,408	51.6
Third quarter	183,086	94,088	51.4
Fourth quarter	122,756	62,524	50.9
1942 (first half)	193,851	118,457	61.1
First quarter	111,226	64,349	57.9
Second quarter	82,625	54,108	65.5

It will be noted from table 2 that the first 2 quarters of 1941 each showed an increase of about 35 percent over the corresponding quarter of the previous year in the volume of private construction. The increase for the third quarter was smaller—about 27 percent—and that for the fourth quarter was less than 2 percent. The periods of 1942 were marked by decreases in comparison with 1941. That for the first quarter was very slight, not quite 1 percent, but for the second quarter it was about 45 percent, and for July and August, about 57 percent.

TABLE 2.—*New Privately Financed Dwelling Units Provided in 138 Defense Areas, January 1940 to August 1942, by Quarter and Geographic Division*

Period	Total	New England	Middle Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific
Total	723,845	40,384	144,033	122,565	127,787	26,964	31,683	63,019	17,820	149,590
1940	256,484	15,287	54,851	40,417	43,214	7,607	10,069	20,116	6,720	58,203
First quarter	48,144	1,730	10,628	7,378	6,267	1,401	1,826	4,712	1,265	12,937
Second quarter	72,825	4,770	16,063	10,778	12,888	1,955	2,970	5,505	2,023	15,873
Third quarter	74,038	4,749	14,694	12,419	13,643	2,304	3,185	5,579	1,854	15,611
Fourth quarter	61,477	4,038	13,466	9,842	10,416	1,947	2,088	4,320	1,578	13,782
1941	319,958	17,614	63,282	53,567	57,948	14,197	12,971	26,490	8,081	65,808
First quarter	64,938	2,400	12,400	11,945	10,537	2,961	2,196	5,625	1,584	15,290
Second quarter	98,408	5,794	20,200	16,479	19,097	3,955	3,987	6,578	2,583	19,735
Third quarter	94,088	5,600	18,462	15,559	18,442	3,950	4,109	7,743	2,281	17,942
Fourth quarter	62,524	3,820	12,200	9,584	9,872	3,331	2,679	6,544	1,633	12,841
1942 (8 months)	147,403	7,483	25,900	28,581	26,625	5,160	8,643	16,413	3,019	25,579
First quarter	64,349	2,686	10,221	12,054	10,947	2,700	4,186	8,144	1,143	12,268
Second quarter	54,108	3,373	10,298	10,713	10,568	1,856	2,864	5,036	1,261	8,139
July-August	28,946	1,424	5,381	5,814	5,110	604	1,593	3,233	615	5,172

While these major decreases were brought about mainly by WPB Conservation Order L–41, issued on April 9, 1942, the preceding tapering off showed other forces at work as well. The provision in late 1941 that preference orders could be secured for purchase of various building materials to be used for certain types of housing within defense areas suggested the possibility of more stringent

regulations, and probably discouraged contemplated construction. Increasing difficulty in obtaining certain necessary materials, even with preference orders, became evident at this period. Thus doubt was raised as to when, or even whether, the builders could expect completion of units started currently.

It is likely also that the prevalence of building for sale rather than for rental was a factor in reversal of the previous expansion of the construction rate. Continued growth of employment in any area is likely to bring newcomers less willing or less able to purchase dwelling units than those hired earlier and feeling more firmly established within the locality. Intensive study of the units constructed in the Bridgeport, Conn. area [4] showed in the prices paid for houses, and even more in the prices asked for unsold houses, that ownership within this area was a responsibility suitable only for those of substantial and assured incomes. Fewer than a fourth of the purchasers had lived within the area for less than 18 months. No such definite information is available for other areas, but it seems highly probable that the effective market for houses for sale was an influence on the volume of private construction.

Most of the geographic divisions followed the timing pattern of the country as a whole, but certain exceptions may be noted. In the West North Central and West South Central States, the greatest activity occurred in the first quarter of 1942. In contrast, the decline in construction in the Pacific States became pronounced earlier than elsewhere and was more extensive.

TABLE 3.—*New Privately Financed Dwelling Units Provided per 10,000 Population* [1] *in 138 Defense Areas, January 1940 to August 1942, by Quarter and Geographic Division*

Period	Total	New England	Middle Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific
Total	167.23	82.09	98.43	282.76	173.37	154.98	134.08	230.03	221.88	341.41
1940	59.25	31.07	37.48	93.22	58.63	43.72	42.61	73.43	83.67	132.84
First quarter	11.12	3.52	7.26	17.00	8.50	8.05	7.73	17.20	15.75	29.53
Second quarter	16.82	9.70	10.98	24.87	17.48	11.24	12.57	20.09	25.19	36.23
Third quarter	17.10	9.65	10.04	28.65	18.51	13.24	13.48	20.36	23.08	35.63
Fourth quarter	14.20	8.21	9.20	22.71	14.13	11.19	8.84	15.77	19.65	31.45
1941	73.92	35.80	43.25	123.58	78.62	81.59	54.89	96.69	100.62	150.19
First quarter	15.00	4.88	8.47	27.56	14.30	17.01	9.29	20.53	19.72	34.90
Second quarter	22.73	11.78	13.80	38.02	25.91	22.73	16.87	24.01	32.16	45.04
Third quarter	21.74	11.38	12.62	35.90	25.02	22.70	17.39	28.26	28.40	40.95
Fourth quarter	14.44	7.76	8.35	22.11	13.39	19.14	11.34	23.89	20.33	29.31
1942 (8 months)	34.06	15.21	17.70	65.95	36.12	29.67	36.58	59.91	36.38	58.38
First quarter	14.87	5.46	6.99	27.81	14.85	15.52	17.71	29.73	14.23	28.00
Second quarter	12.50	6.86	7.04	24.72	14.34	10.66	12.12	18.38	15.70	18.58
July-August	6.69	2.89	3.68	13.43	6.93	3.49	6.74	11.80	7.42	11.80

[1] Based on 1940 census of population.

The number of dwelling units constructed per 10,000 of 1940 population was lowest in New England and the Middle Atlantic States, the two divisions of oldest industrial background. It was highest for the entire period, and for each quarter of 1940 and 1941, in the Pacific States. These high rates from the start of the period covered reflect the early growth in war industry in the Pacific area,

[4] Monthly Labor Review for May 1942, p. 1073: Occupancy of Privately Financed Houses in Bridgeport.

before its extensive development in many other parts of the country. Similarly, the patterns followed by the rates for the South Atlantic States, East South Central States, and West South Central States conform to their later expansion of war activities. The lower rates shown in table 3 for New England and the Middle Atlantic States result in part from the conversion of existing manufacturing facilities to war production, whereby a large number of the war employees were already established members of their communities. Were adjustments in population figures for migration of war workers feasible, the changes in construction rates with the passage of time would be modified.

Valuations of Privately Financed Units

Valuations used in the Defense Housing Survey were either the recorded building-permit valuations or the estimated construction costs for all units constructed without permits. For two-family and multifamily structures the valuation per unit was used, but no adjustment was made for stores or other nonresidential facilities included in the structures. Costs of land and other nonconstruction costs were omitted.

More than a quarter of all units shown in table 4 were in the valuation range from $3,000 to $3,999, which remained the largest group at all times. Its relative importance increased slightly with the passage of time until it included almost a third of the total for July and August 1942.

The valuations indicated that large numbers of the units were relatively spacious and durable. About three-eighths of them were in the range of $4,000 or over, and this included almost a tenth of the total in each of the classifications of $5,000 to $5,999 and $6,000 or over. These higher classifications increased proportionately from 1940 to 1941 in response to rising construction costs, but fell off sharply in 1942. As a result of cost limitations embodied in priorities regulations, units having a valuation of $6,000 or over made up only a little more than 1 percent of the units reported for July and August 1942.

TABLE 4.—*Permit Valuations, or Estimated Construction Costs, of Privately Financed Dwelling Units in 138 Defense Areas, January 1940 to August 1942*

Period	Permit valuation or estimated construction cost								
	Total	Under $500	$500–999	$1,000–1,999	$2,000–2,999	$3,000–3,999	$4,000–4,999	$5,000–5,999	$6,000 or over
Total (32 months):									
Number	723,845	20,384	26,828	72,421	149,213	184,340	133,937	69,979	66,743
Percent of total	100.00	2.82	3.71	10.00	20.61	25.47	18.50	9.67	9.22
1940	256,484	5,990	9,282	27,192	53,525	62,770	45,109	26,142	26,474
1941	319,958	8,068	11,014	32,578	61,051	80,017	59,124	33,160	34,946
First quarter	64,938	1,488	2,030	7,569	12,641	16,780	11,861	6,157	6,712
Second quarter	98,408	2,128	3,258	9,839	18,992	24,431	18,100	10,543	11,117
Third quarter	94,088	2,307	3,335	9,372	18,086	23,121	17,229	10,016	10,622
Fourth quarter	62,524	2,145	2,391	5,798	11,332	15,685	12,234	6,444	6,495
1942 (8 months)	147,403	6,326	6,532	12,651	34,637	41,553	29,704	10,677	5,323
First quarter	64,349	2,056	2,504	6,184	14,985	17,363	12,426	5,103	3,728
Second quarter	54,108	2,563	2,425	4,559	13,780	14,710	11,071	3,784	1,216
July–August	28,946	1,707	1,603	1,908	5,872	9,480	6,207	1,790	379

Dwellings in the lowest valuation group, under $500, were not quite 3 percent of the total. This group increased rather consistently during the period covered, and was very close to 6 percent for the final 2 months. Data for a few areas suggest the possibility of some tendency to undervaluation as a means of avoiding priority restrictions, but this factor at most is very small. The increase in the lowest valuation group was the result mainly of increasing construction of rudimentary units without plumbing, consisting usually of a single small room, in response to the housing shortage. Such units, commonest in the East South Central and West South Central States, were ordinarily built for rental.

The average valuation [5] for the entire period was $3,505. This figure was $3,514 for 1940, rose to $3,591 for 1941, and then with reduction of operations in the two highest valuation classes fell to $3,326 for the first 8 months of 1942. Yet within 1942 it rose to $3,357 for July and August. This increase resulted largely from reductions in the ranges from $1,000 to $2,999, despite substantial relative increases in units costing less than $500 and reduction in the groups above $5,000 in July and August.

Average valuations were highest in the East North Central States ($4,345) and New England ($4,319), and these two divisions had the largest percentages of valuations of $6,000 or over. Construction requirements imposed by climate must be considered in comparing valuations for different parts of the country shown in table 5. The lowest average valuation, $2,388, occurred in the West South Central States.

TABLE 5.—*Permit Valuation, or Estimated Construction Cost, of Privately Financed Dwelling Units in 138 Defense Areas, January 1940 to August 1942, by Division*

Geographic division	Permit valuation or estimated construction cost								
	Total	Under $500	$500–999	$1,000–1,999	$2,000–2,999	$3,000–3,999	$4,000–4,999	$5,000–5,999	$6,000 or over
All divisions	723,845	20,384	26,828	72,421	149,213	184,340	133,937	69,979	66,743
New England	40,384	397	568	1,619	4,538	9,142	12,336	6,191	5,593
Middle Atlantic	144,033	481	1,532	5,715	21,280	45,883	34,494	17,567	17,081
South Atlantic	122,565	3,768	5,158	17,751	34,313	29,042	16,146	7,126	9,261
East North Central	127,787	2,294	4,453	8,599	12,565	25,032	31,713	23,620	19,511
East South Central	26,964	3,285	3,179	4,567	6,317	4,690	2,376	1,081	1,469
West North Central	31,683	789	752	4,033	7,654	7,820	5,902	2,507	2,226
West South Central	63,019	6,563	5,191	8,511	15,058	14,072	7,421	2,769	3,434
Mountain	17,820	760	894	2,219	3,996	4,935	2,940	1,204	872
Pacific	149,590	2,047	5,101	19,407	43,492	43,724	20,609	7,914	7,296

Whereas the changes in the valuation pattern for the country were minor during the period included, within divisions the changes were more marked. For the Pacific States the group with the largest number of units shifted from $2,000–2,999 to $3,000–3,999 between 1940 and 1941, and for the 1942 months the latter group included almost a third of all private construction. For the East South Central States the same upward shift occurred, but a year later, and with scarcely a fifth of all 1942 units in the $3,000–3,999 classification. In the West North Central States, however, there was a reverse movement from 1941 to 1942, with a drop in average valuation between these two years from $3,535 to $2,867.

[5] Median valuation computed from frequency distributions.

Public Housing Projects

Public housing projects, even more than private housing, were concentrated in the defense areas chosen. The 138 areas contained slightly more than seven-tenths of all such housing units for which contracts were awarded from January 1940 through August 1942. The relative importance of public projects in these defense areas varied among the different geographic divisions shown in table 6. In defense housing areas in the New England, South Atlantic, and East South Central States, public units formed over 30 percent of the total. In the West North Central States the proportion was 23 percent, but in the remaining divisions public units made up less than 20 percent of the total.

Public construction increased much more, relatively, from 1940 to 1941 than did private operations. Then it continued to increase during the first half of 1942, with almost as many units started during the second quarter as during the entire year 1941. However, this increase was accompanied by a change in the characteristics of the units provided, with greater emphasis on temporary and demountable structures.[6]

TABLE 6.—*Publicly and Privately Financed Dwelling Units in 138 Defense Areas, January 1940 to August 1942, by Quarter and Geographic Division*

Period	All geographic divisions		New England	Middle Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific
	Public units	Private units	Public units [1]								
1940	52,218	256,484	4,460	8,834	14,688	7,210	3,471	674	7,279	1,002	4,600
First quarter	6,647	48,144	831	524	1,914	276	332	272	2,498	-------	-------
Second quarter	8,432	72,825	-------	2,285	1,892	1,465	1,743	-------	569	478	-------
Third quarter	12,162	74,038	856	2,688	3,541	2,604	500	97	1,402	474	-------
Fourth quarter	24,977	61,477	2,773	3,337	7,341	2,865	896	305	2,810	50	4,600
1941	66,411	319,958	9,267	17,909	13,966	8,364	3,213	3,624	3,577	827	5,664
First quarter	12,394	64,938	2,326	1,000	4,891	214	634	842	1,318	229	940
Second quarter	21,648	98,408	3,956	6,269	3,269	3,075	1,950	1,057	650	422	1,000
Third quarter	23,027	94,088	2,985	8,297	3,823	3,388	629	1,115	1,139	176	1,475
Fourth quarter	9,342	62,524	-------	2,343	1,983	1,687	-------	610	470	-------	2,249
1942	93,407	147,403	5,679	8,622	28,340	7,970	7,060	5,400	2,148	2,186	26,002
First quarter	21,404	64,349	1,298	3,475	7,228	839	2,478	-------	1,448	76	4,562
Second quarter	66,095	54,108	2,131	5,147	19,594	7,091	4,182	5,400	-------	2,110	20,440
July-August	5,908	28,946	2,250	-------	1,518	40	400	-------	700	-------	1,000
Total: (32 months)	212,036	723,845	19,406	35,365	56,994	23,544	13,744	9,698	13,004	4,015	36,266
	Private units										
Total (32 months)	-------	723,845	40,384	144,033	122,565	127,787	26,964	31,683	63,019	17,820	149,590

[1] Housekeeping units only, including demountable and temporary units and dormitory apartments, but excluding dormitories, trailers, and portable units.

Conversions

Little can be said about the increase in dwelling units from conversion, because of indications that the data in table 7 are seriously incomplete. Informal permit requirements in many localities, com-

[6] See New Dwelling Units in Nonfarm Areas, First 9 Months of 1942, p. 1212 of this issue.

bined with the difficulties of enforcing the requirements by thorough field inspection, make it probable that a great number of conversion operations were carried out without being entered in official local records. Therefore, comparisons between conversions and new construction for a specific geographic division, or comparison of conversion rates among divisions, would probably be misleading.

On the assumption that the completeness of conversion records did not vary greatly during the period covered, conversion operations were much more uniform throughout the period than was new construction, and the reduction following priorities restrictions was minor.

TABLE 7.—*Units Added by Conversion in 138 Defense Areas, January 1940 to August 1942, by Geographic Division and Quarter*[1]

Period	Total	New England	Middle Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific
Total	50,068	5,793	29,129	3,297	5,371	583	1,416	1,011	1,118	2,350
1940	16,683	2,323	10,031	1,024	1,695	111	355	254	341	549
First quarter	3,578	562	2,031	238	348	12	76	76	94	135
Second quarter	4,348	606	2,672	251	448	41	99	51	65	115
Third quarter	4,847	615	2,983	295	496	18	98	95	118	129
Fourth quarter	3,910	534	2,345	240	403	40	82	32	64	170
1941	20,299	2,412	11,897	1,326	2,133	320	646	421	364	780
First quarter	4,244	519	2,451	260	466	74	150	79	94	151
Second quarter	5,656	653	3,331	368	584	120	198	75	115	212
Third quarter	5,532	712	3,239	360	540	78	167	129	73	234
Fourth quarter	4,867	528	2,876	338	543	48	131	138	82	183
1942 (8 months)	13,086	1,058	7,201	947	1,543	152	415	336	413	1,021
First quarter	4,802	460	2,772	320	532	56	150	121	106	285
Second quarter	4,885	387	2,782	381	535	55	167	129	143	306
July–August	3,399	211	1,647	246	476	41	98	86	164	430

[1] Increase in dwelling units from conversions is that recorded in permit records and other official records and that learned from unofficial sources, but is believed to represent conversion operations only incompletely.

NEW DWELLING UNITS IN NONFARM AREAS, FIRST 9 MONTHS OF 1942 [1]

Summary

THE estimated number of new family dwelling units started in nonfarm areas during the first 9 months of 1942 dropped to 394,000 from a total of 580,000 units for the similar period in 1941. Although privately financed new residential construction was halved as a result of the War Production Board's order of April 9 halting all nonessential building, the number of publicly financed units put under construction contract increased by more than 60 percent over the total for the first 9 months of 1941.

Publicly financed projects for which construction contracts were let during the first 9 months of 1942 will provide accommodations for 133,949 families, almost half again as many as during the entire year 1941. All of the 131,984 units under the jurisdiction of the Federal Public Housing Authority of the National Housing Agency are reserved

[1] Prepared by George Schumm, of the Bureau's Division of Construction and Public Employment.

for war workers or families of military personnel. During the first 9 months of 1941, 82,882 units in publicly financed projects, of which 76,415 were reserved for war workers, were put under construction contract. By the end of September 1942, the Federally financed war housing program had completed or under construction a total of 252,785 dwelling units in continental United States. In addition, dormitory accommodations for over 64,000 persons were started in the first 9 months of 1942. These figures do not include trailers or portable units.

One- and two-family type dwelling units declined 35 and 40 percent, respectively, from the totals for the first 9 months of 1941. Multifamily units, however, declined only 3 percent. One-family dwellings comprised approximately 82 percent of the total units started during the first 9 months of 1942; 2-family dwellings accounted for 4 percent; and apartment houses for 14 percent. During the first 9 months of 1941, 85 percent of the new units were of the 1-family type, 5 percent were of the 2-family type, and 10 percent were in structures of the multifamily type.

Scope of Report

The "nonfarm area" of the United States consists of the aggregate of urban and rural nonfarm places. The urban designation is applied to all incorporated places with 1940 population of 2,500 or greater, and also, by special rule, to a small number of unincorporated civil divisions. In the class of rural nonfarm construction is included all construction activity for nonagricultural use in unincorporated areas and incorporated places of less than 2,500 population. Hence urban construction actually corresponds to a definite area while rural nonfarm construction depends for its classification upon the intended use of the individual buildings.

Building-permit reports collected by the Bureau of Labor Statistics have provided the basic information for current estimates of residential construction. The Bureau began the regular collection of these data in 1920, at first including only the larger cities. Since that time coverage has been steadily expanded until it now includes more than 2,400 cities and 1,000 rural incorporated places. In addition, since 1939 a small number of counties have reported on building permits issued for their unincorporated areas. A valuable supplementary source of information, particularly in preparing rural estimates, was the recently discontinued Defense Housing Survey, a joint enterprise of the Bureau of Labor Statistics, the National Housing Agency, and the Works Projects Administration.

Since building permits are issued when construction work is about to start, estimates derived from permits represent the future dwelling-unit capacity of buildings upon which construction was started in the period specified. No attempt is made here to estimate the number of family accommodations gained by alterations and conversions or those lost by demolitions.

Volume of New Residential Construction

Building permits issued in nonfarm areas and contracts awarded for public housing indicate that construction was started on approximately 394,000 new family dwelling units during the first 9 months of 1942, or 32 percent less than during the same period of 1941.

The number of privately financed dwelling units started during this period declined 48 percent from the total for the first 9 months of 1941 as a result of governmental restrictions. Material shortages and uncertainty with regard to the form that necessary restrictive measures would take caused many private builders to curtail their activities somewhat during the first quarter of 1942. It was not, however, until April 9 when the War Production Board issued Conservation Order L–41, that the private home-building industry was seriously affected. The effect of this order is demonstrated by comparison with data for 1941. The number of new privately financed units started in the first, second, and third quarters declined 9, 57, and 64 percent respectively from the corresponding totals for 1941.

Between September 1941 and September 30, 1942, applications for priorities covering 322,711 new dwelling units were approved by WPB and work was in progress or completed on approximately 207,000 of them. This includes 40,000 units started before September 1941, which needed priorities assistance for completion. Priorities for the rehabilitation of existing structures to provide accommodations for 24,441 families had also been approved by the end of September.

From data made available by the Federal Housing Administration, it may be estimated that about 150,000 of the 260,000 privately financed units started during the first 9 months of 1942 had priorities assistance. Since the FHA reports cover only dwelling units actually started with priorities assistance, these data are not strictly comparable with estimates based on building permits and care should be taken in making comparisons between the two series.

In contrast to the 48-percent decline in privately financed new dwelling units, the number of families to be accommodated in public projects for which construction contracts were let during these 9 months was more than 60 percent greater than the corresponding number for 1941. The severe housing shortages resulting from sudden industrial expansions in many localities have not only greatly expanded the public housing program but have drastically changed the type of structures built in public projects. In previous years, publicly financed housing has been of a permanent nature. This was true even of much of the so-called "defense" housing. Thus far in 1942, however, the major emphasis has been placed on those types of structures which can be quickly constructed, use a minimum of critical materials, and yet fill the need for immediate shelter. Of the 131,984 units put under contract during the first 9 months of 1942 and which were under the jurisdiction of the Federal Public Housing Authority, more than half were 1-family "demountables" and almost 10 percent were temporary "war apartments." [2] In 1941, only about 10 percent of the publicly financed units started were "demountables" and none were "war apartments." During the first 9 months of 1942, dormitory accommodations for over 64,000 persons were put under construction contract as compared to about 9,000 during the entire year of 1941. These figures do not include trailers or portable units.

[2] "Demountable" houses are frame buildings so constructed that demolition and reconstruction on other sites is possible with very small amounts of labor and new materials. "War apartments" are 1- and 2-room minimum housekeeping accommodations for couples in multifamily-type frame buildings.

Comparison by Population Group

Cities of 50,000 to 100,000 population experienced less curtailment in residential construction than any other size group, 21 percent, while the entire nonfarm area declined 23 percent. Cities of 2,500 to 5,000 population and 5,000 to 10,000 population declined 56 and 48 percent respectively. Table 1 shows the effect which the inclusion of publicly financed projects has on these comparisons. More than 3 times as many publicly financed units were built in the rural nonfarm area during the first 9 months of 1942 as during the first 9 months of 1941, while less than half as many privately financed units were started in this area. The number of privately financed dwelling units started during the first 9 months also fell sharply in all urban size groups from the corresponding totals for 1941. Cities of 50,000 to 100,000 population declined 36 percent, the least of any size group, while cities of 2,500 to 5,000 population declined 57 percent. Public housing, however, was concentrated in localities where acute housing shortages exist, owing to expanding war production facilities. Since publicly financed war-housing projects require, in general, large tracts of vacant land, many are in areas adjacent to the corporate limits of larger cities. The need for housing near certain war plants built in sparsely inhabited areas also contributed to the large rural nonfarm total.

TABLE 1.—*New Dwelling Units in Nonfarm Areas, First 9 Months of 1941 and 1942, by Population Group and Source of Funds*

Area and population group (1940 census)	Total		Private funds		Public funds	
	First 9 months of—					
	1942	1941	1942	1941	1942	1941
All nonfarm areas	393,700	579,600	259,751	496,718	133,949	82,882
Percent of change, 1941 to 1942	−32.1		−47.7		+61.6	
Urban (cities)	224,700	358,700	161,073	298,291	63,627	60,409
500,000 and over	50,500	83,500	38,624	72,509	11,876	10,991
100,000 to 500,000	48,200	75,800	33,407	58,000	14,793	17,800
50,000 to 100,000	27,500	34,600	18,342	28,554	9,158	6,046
25,000 to 50,000	22,400	41,300	17,220	33,736	5,180	7,564
10,000 to 25,000	44,500	58,600	26,065	48,552	18,435	10,048
5,000 to 10,000	19,300	37,100	17,152	32,976	2,148	4,124
2,500 to 5,000	12,300	27,800	10,263	23,964	2,037	3,836
Rural nonfarm areas	169,000	220,900	98,678	198,427	70,322	22,473

One-family dwellings comprised approximately 82 percent of the total units started during the first 9 months of 1942; 2-family dwellings accounted for 4 percent; and apartment houses for 14 percent. During the first 9 months of 1941, 85 percent of the new units were of the 1-family type, 5 percent were of the 2-family type, and 10 percent were in multifamily structures. Privately financed multifamily units decreased 36 percent, but this was almost entirely offset by several large public projects containing a total of 11,529 "war apartments." As a result, multifamily units started in the first 9 months of 1942 decreased only 3 percent from the number started during the same period in 1941, whereas 1-family and 2-family units declined 35 and 40 percent, respectively. Privately financed multifamily units alone

declined 31 percent in urban areas, while such units in nonfarm areas declined 78 percent. Details on the distribution of the new dwelling units by type and population group are given in table 2.

TABLE 2.—*New Dwelling Units in Nonfarm Areas, First 9 Months of 1941 and 1942, by Population Group and Type of Dwelling*

Area and population group (1940 census)	All types		1-family		2-family		Multifamily	
	First 9 months—							
	1942	1941	1942	1941	1942	1941	1942	1941
All nonfarm areas	393,700	579,600	322,800	495,700	16,800	27,900	54,100	56,000
Percent of change, 1941 to 1942	−32.1		−34.9		−39.8		−3.4	
Urban (cities)	224,700	358,700	161,600	284,500	15,700	23,100	47,400	51,100
500,000 and over	50,500	83,500	25,500	48,500	5,500	6,800	19,500	28,200
100,000 to 500,000	48,200	75,800	37,900	59,000	3,800	6,200	6,500	10,600
50,000 to 100,000	27,500	34,600	17,100	27,400	2,200	3,300	8,200	3,900
25,000 to 50,000	22,400	41,300	17,200	36,200	1,600	2,000	3,600	3,100
10,000 to 25,000	44,500	58,600	35,000	52,900	1,400	2,700	8,100	3,000
5,000 to 10,000	19,300	37,100	17,100	34,600	1,000	1,300	1,200	1,200
2,500 to 5,000	12,300	27,800	11,800	25,900	200	800	300	1,100
Rural nonfarm areas	169,000	220,900	161,200	211,200	1,100	4,800	6,700	4,900

Comparison by Geographic Division

Both the volume and location of new housing have been affected by the wartime necessity of governmental control. In the immediate future still greater concentration of new housing in certain areas will probably be necessary. During the third quarter of 1941, 18 and 21 percent of all new dwelling units started were in the Middle Atlantic and East North Central States respectively. During the same period in 1942, these percentages had dropped to 13 and 18 percent respectively. On the other hand, the Pacific States had risen from fourth place among the 9 areas with less than 15 percent of all new units in 1941 to first place with 24 percent in 1942.

The number of privately financed units started during the third quarter was 64 percent less than during the same period in 1941 and 20 percent less than during the second quarter of 1942. The various areas showed declines, from the third quarter of 1941 totals to the corresponding figures for 1942, varying from 53 percent in the Pacific States to 79 percent in the East South Central States.

The distribution of privately financed units among the several areas reflects to some extent the increased localization of residential construction in those localities experiencing the greatest shifts from their prewar economy; the distribution of publicly financed units strongly reflects this trend. In both the second and third quarters of 1942, over one-third of all publicly financed units were started in the Pacific States. During the entire year 1941, less than 15 percent were located in this region. Details on the number of privately and publicly financed dwelling units started during the second and third quarters of 1942 and the third quarter of 1941 may be found in table 3.

TABLE 3.—*New Dwelling Units in Nonfarm Areas, Third Quarter of 1941, and Second and Third Quarters of 1942, by Geographic Division and Source of Funds*

Geographic division	Total units			New dwelling units financed by—					
				Private funds			Public funds		
	Third quarter, 1942	Second quarter, 1942	Third quarter, 1941	Third quarter, 1942	Second quarter, 1942	Third quarter, 1941	Third quarter, 1942	Second quarter, 1942	Third quarter, 1941
All divisions	87,900	167,500	211,400	65,896	82,633	183,073	22,004	84,867	28,327
New England	6,200	6,200	12,400	2,773	3,969	9,175	3,427	2,231	3,225
Middle Atlantic	11,500	19,100	38,200	9,969	13,692	29,413	1,531	5,408	8,787
East North Central	16,100	28,400	43,900	13,960	17,910	39,394	2,140	10,490	4,506
West North Central	3,400	10,500	14,300	3,400	5,100	12,895	0	5,400	1,405
South Atlantic	16,500	37,900	36,200	12,202	15,481	31,117	4,298	22,419	5,083
East South Central	3,300	7,000	10,500	1,962	2,960	9,502	1,338	4,040	998
West South Central	8,000	9,800	18,900	6,800	7,981	16,936	1,200	1,819	1,964
Mountain	1,600	4,200	6,200	1,466	1,828	5,916	134	2,372	284
Pacific	21,300	44,400	30,800	13,364	13,712	28,725	7,936	30,688	2,075

The number of multifamily units started changed very little between the respective third quarters of 1941 and 1942, owing principally to the number of publicly financed units of this type. This type of construction has increased significantly since 1941 in the Pacific and South Atlantic areas and declined sharply in the Middle Atlantic area which formerly dominated completely this type of construction. The construction of "war apartments" contributed heavily to the large increases in the Pacific and South Atlantic States. Table 4 presents estimates for the second and third quarters of 1942 and the third quarter of 1941.

TABLE 4.—*New Dwelling Units in Nonfarm Areas, Third Quarter of 1941, and Second and Third Quarters of 1942, by Geographic Division and Type of Dwelling*

Geographic divisions	All types			1-family			2-family			Multifamily		
	Third quarter, 1942	Second quarter, 1942	Third quarter, 1941	Third quarter, 1942	Second quarter, 1942	Third quarter, 1941	Third quarter, 1942	Second quarter, 1942	Third quarter, 1942	Third quarter, 1941	Second quarter 1942	Third quarter, 1941
All divisions	87,900	167,500	211,400	68,200	142,500	186,000	4,100	5,500	9,500	15,600	19,500	15,900
New England	6,200	6,200	12,400	5,800	5,600	11,800	200	100	300	200	500	300
Middle Atlantic	11,500	19,100	38,200	8,200	15,400	31,600	1,000	2,500	2,100	2,300	1,200	4,500
East North Central	16,100	28,400	43,900	14,300	26,700	41,500	1,100	800	1,400	700	900	1,000
West North Central	3,400	10,500	14,300	3,100	9,900	13,700	100	200	400	200	400	200
South Atlantic	16,500	37,900	36,200	9,200	31,500	29,300	200	1,000	1,900	7,100	5,400	5,000
East South Central	3,300	7,000	10,500	2,400	5,600	9,000	100	300	1,100	800	1,100	400
West South Central	8,000	9,800	18,900	7,100	9,500	15,900	200	200	900	700	100	2,100
Mountain	1,600	4,200	6,200	1,400	4,000	5,600	100	100	300	100	100	300
Pacific	21,300	44,400	30,800	16,700	34,300	27,600	1,100	300	1,100	3,500	9,800	2,100

Estimated Permit Valuations

The permit valuations of the 394,000 new units started during the first 9 months of 1942 in nonfarm areas were estimated to aggregate $1,237,300,000, a decrease of 39 percent from the $2,026,100,000 estimate for the same period of 1941. Estimated permit valuations for privately financed units totaled $824,000,000, a decline of 53 percent

from the corresponding total for 1941, and construction contracts awarded aggregated an estimated $413,300,000, an increase of 50 percent. Care should be taken when comparing the private and public aggregates in table 5, since the public figures are construction-contract values rather than permit valuations which understate construction costs. WPB's Conservation Order L–41, limiting the cost per new dwelling unit was largely responsible for a 10-percent decline in the average permit valuation of privately financed units. The shift from permanent to temporary construction and the widespread increase in the use of prefabricating construction methods resulted in a 7-percent decrease in the average construction-contract valuation per publicly financed dwelling unit.

TABLE 5.—*Estimated Permit Valuation of New Dwellings in Nonfarm Areas, First 9 Months of 1941 and 1942, by Geographic Division and Source of Funds*

[In thousands of dollars]

Geographic divisions	Total		Private funds		Public funds [1]	
	First 9 months of—					
	1942	1941	1942	1941	1942	1941
All divisions	$1,237,255	$2,026,121	$823,996	$1,750,842	$413,259	$275,279
New England	67,752	137,714	41,013	99,242	26,739	38,472
Middle Atlantic	191,116	404,375	145,167	341,449	45,949	62,926
East North Central	252,127	464,722	202,058	426,350	50,069	38,372
West North Central	61,861	122,238	46,954	109,732	14,907	12,506
South Atlantic	234,588	317,260	130,679	257,765	103,909	59,495
East South Central	51,615	73,012	26,558	61,955	25,057	11,057
West South Central	84,065	141,215	71,100	124,772	12,915	16,443
Mountain	31,015	52,225	17,933	48,676	13,132	3,549
Pacific	263,116	313,360	142,534	280,901	120,582	32,459

[1] Contract values.

1942 CONVENTION OF CONGRESS OF INDUSTRIAL ORGANIZATIONS

DECLARING that "Every man and woman in this convention representing a C. I. O. affiliate has one firm determined conviction, and that is, come what may, this war must be won, and in winning the war the forces of tyranny and aggression which plague the world today must necessarily be driven from the face of the very earth," President Murray, in his opening speech to the delegates, set the tempo of the fifth constitutional convention of the Congress of Industrial Organizations, which met in Boston, Mass., November 9–13, 1942. This overwhelming determination to see through to a victorious conclusion the present world-wide conflict was continuously reflected in the day-to-day discussions of the delegates and in the course of their adoption of numerous resolutions intended to support and further the war effort. It was also reflected in the speeches of the invited guests, which included Assistant Secretary of War, Robert P. Patterson; Assistant Secretary of the Navy, Ralph Bard; and Senator Claude Pepper, of Florida. The sacrifices and contributions of British labor during the war were described to the delegates by Bryn Roberts, president of the National Union of Public Employees of Great Britain, who was one of the two fraternal delegates from the Trades Union Congress to the 1942 convention of the American Federation of Labor, which met in Toronto in October.

President Roosevelt sent a personal message to the convention expressing his regret not to be able, because of pressure of duty, to address the convention in person. The message expressed the President's conviction that labor was contributing its full share to the war effort and called for the endurance and necessary perseverance to carry on even in the face of fatigue and discouragement. It read in part:

> My recent visit to industrial areas throughout the country has given me new insight into what labor is doing to fulfill its part in winning the war. The picture is most encouraging. The extraordinary skill and speed of the American workman, the intelligence and capacity for cooperation with management, with each other, and with the Government, shown by the wage earners of America is bound to be astonishing and satisfactory, even to one who like myself always expected that every workingman and every labor union would do full duty in the production program.
>
> Through you I should like to thank all the members of the organizations affiliated with the Congress of Industrial Organizations for what they personally are doing and to invite their further cooperation and effort in the days ahead. We have built a vital and tremendous industrial production structure and program. It is working. Now we have to show the endurance, the tenacity, and the persistence necessary to continue this program and extend it, even if faced with fatigue and discouragement. I count on the members of your organization to help in carrying out all the programs that are necessary for our national effort, and particularly those programs that have to do with preventing inflation,

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with sharing our customary good living with others, in order that the world may be safe for liberty and human betterment.

The strong endorsement of the war effort by the Congress of Industrial Organizations and President Murray's call for unconditional support of President Roosevelt did not deter the delegates from freely discussing and at times severely criticising what the C. I. O. regarded as shortcomings in the various war agencies charged with the responsibility of providing the equipment, materials, and manpower needed for the successful prosecution of the war. Outstanding among the topics discussed at length were racial and religious discrimination as practiced in some industries, agriculture, and the war effort, the War Labor Board, and total war mobilization.

The resolution on total war mobilization was adopted immediately after Senator Pepper addressed the delegates, outlining in considerable detail the Pepper-Tolan bills on manpower pending in Congress. The resolution called for Nation-wide planning and utilization of all war material and manpower resources to be carried out under a centralized administrative control which would incorporate the activities of war supply, war manpower, and economic stabilization. It approved the recommendations contained in the recent report of Congressman Tolan's Committee Investigating National Defense Migration and in the Pepper-Tolan bills, these to be put into effect with the utmost speed by Executive action. A part of this resolution read:

> Under such total war mobilization, all of the production facilities will be utilized on the basis of what is best for the Nation. Centralized planning and control can determine the apportionment of facilities and materials between the military forces and our civilian needs. There can be no hindrance of such mobilization because of any profit or price problem or because of any fears of post-war difficulties.
>
> Under such total war mobilization, labor must concentrate on obtaining a wage program which will assure the most efficient workers for production consistent with the supply of consumer goods that can be made available under a wartime economy. Food, clothing, and shelter must be rationed on a universal basis and their prices controlled so as to protect first those who actually produce for war. Wages must be adjusted so as to guarantee to the workers that they will obtain the goods and services to meet their essential needs.

Labor Unity

After considerable discussion, in which President Murray, Sidney Hillman, president of the Amalgamated Clothing Workers, and Walter Reuther, vice president of the United Automobile, Aircraft and Agricultural Implement Workers, analyzed the need for labor unity and the difficulties involved in solving the problem, the convention unanimously adopted the resolution on labor unity, which read in part:

> We express our support and confidence in the committees representing the C. I. O. and A. F. of L. to bring forward a fair and equitable program for the establishment of a unified labor movement dedicated to the winning of the war and the promotion of the basic and democratic interests of the working men and women of America. To achieve this goal, the following principles must be recognized:
>
> 1. Unity requires the maintenance and extension of the gains that the C. I. O. has won for the workers through industrial organization in the basic war produc-

tion industries. Sacrifice of these gains would aid the enemy, since victory depends on the strength of organized labor. All members in all unions shall be protected and any steps taken must receive the democratic approval of the membership involved. Unity should assure that all forms and practices of racial discrimination within unions be abolished.

2. Unity need not wait on the solution of jurisdictional disputes between the various affiliates of the American labor movement. These are matters that can be resolved within a unified national labor movement.

3. Nothing shall be permitted to weaken or destroy the present working unity that we have achieved on all measures necessary to wage an offensive war against our enemies by mobilizing all our resources for all-out prosecution of the war.

This resolution was followed by another resolution on international labor unity, instructing the C. I. O. leaders to continue to take all the necessary steps to establish international labor cooperation with direct participation by the British and Soviet Unions, the A. F. of L., the C. I. O., and railway labor, and the unions of the other United Nations, including Latin America. It was also suggested that pending these accomplishments, the C. I. O. arrange immediately for an exchange of information with other trade-union bodies of the United Nations with respect to production and all other activities which would strengthen the common war effort.

Organization Activities

According to the report of President Murray to the convention, the C. I. O. is composed of 39 international unions, national unions, or organizing committees and 307 local industrial unions affiliated directly with the C. I. O. State industrial union councils remained at 33, but the number of city, county, and district councils rose to 227. These State and local councils are made up of various C. I. O. unions existing in the areas.

During the year, the C. I. O. chartered one new union—the United Gas, Coke, and Chemical Workers. The National Association of Die Casting Workers was merged with the International Union of Mine, Mill, and Smelter Workers; and the United Mine Workers, at the time of their convention in October 1942, formally withdrew from the C. I. O. Although detailed membership figures were not made public, it was stated at the convention that the organizing gains in the war industries during the course of the year had more than compensated in terms of membership for the withdrawal of mine workers from the organization.

Election of Officers

President Philip Murray and Secretary-Treasurer James Carey were unanimously reelected to their respective offices for the ensuing year. Also reelected were the six vice presidents who had served during the past year: Joseph Curran, president, National Maritime Union; Sherman H. Dalrymple, president, United Rubber Workers; Emil Rieve, president, Textile Workers Union; Frank Rosenblum, vice president, Amalgamated Clothing Workers; R. J. Thomas, president, United Automobile, Aircraft, and Agricultural Implement Workers; and Reid Robinson, president, Mine, Mill, and Smelter Workers.

The constitution of the C. I. O. was amended to provide for three additional vice presidents in order to accord greater representation

to some of the rapidly expanding unions and to distribute more widely the burden of current war duties. Elected to these three new positions were Albert J. Fitzgerald, president, United Electrical, Radio and Machine Workers; John Green, president, Industrial Union of Marine and Shipbuilding Workers; and Allan S. Haywood, director of organization of the C. I. O.

Executive board.—In addition to the president, secretary-treasurer, and nine vice presidents, the following were nominated by the affiliates of the C. I. O. to represent their respective memberships on the executive board:

Aluminum Workers of America, N. A. Zonarich.
Architects, Engineers, Chemists and Technicians, Louis A. Berne.
Automobile, Aircraft, Agricultural Implement Workers, George F. Addes.
Barbers and Beauty Culturists of America, P. Charles DiNeri.
Cannery, Agricultural, Packing and Allied Workers, Donald Henderson.
Amalgamated Clothing Workers of America, Jacob Potofsky.
American Communications Association, Joseph Selly.
Distillery Workers Organizing Committee, Joseph D. Cannon.
United Electrical, Radio and Machine Workers, Julius Emspak.
Farm Equipment Workers, Grant W. Oakes.
United Federal Workers, Eleanor Nelson.
International Union of Fishermen and Allied Workers, Joseph S. Jurich.
International Fur and Leather Workers, Ben Gold.
United Furniture Workers of America, Morris Muster.
Gas, Coke and Chemical Workers, Martin Wagner.
Glass, Ceramic and Silica Sand Workers, I. L. DeShetler.
Inlandboatmen's Union of the Pacific, John M. Fox.
Longshoremen's and Warehousemen's Union, Harry Bridges.
Marine Engineers Beneficial Association, Samuel J. Hogan.
Marine, Cooks and Stewards Association, E. F. Burke.
Marine and Shipbuilding Workers of America, P. H. Van Gelder.
National Maritime Union of America, Frederick Myers.
Mine, Mill and Smelter Workers, James J. Leary.
Newspaper Guild, Milton Murray.
Office and Professional Workers of America, Lewis Merrill.
Oil Workers International Union, O. A. Knight.
Packinghouse Workers Organizing Committee, Sam Sponseiler.
Paper, Novelty and Toy Workers, A. H. Esposito.
United Retail, Wholesale and Department Store Employees, Samuel Wolchok.
United Rubber Workers of America, L. S. Buckmaster.
United Shoe Workers of America, Frank McGrath.
State, County and Municipal Workers, Abram Flaxer.
United Steelworkers of America, Van Bittner.
United Sand and Allied Products Workers, H. C. Ledyard.
Textile Workers Union of America, George Baldanzi.
Transport Service Employees of America, William S. Townsend.
Transport Workers Union of America, Michael Quill.
Utility Workers Organizing Committee, Harold J. Straub.
International Woodworkers of America, Worth Lowery.

CONVENTION OF CANADIAN CONGRESS OF LABOR, 1942 [1]

ALL the basic industries and many others were represented at the third regular convention ot the Canadian Congress of Labor in September 1942. Among the important resolutions adopted were those dealing with the Government's wage policy, collective bargaining, labor unity, unemployment insurance, and post-war problems. Other recommendations dealt with a wide range of problems including public

[1] Canada, Department of Labor, Labor Gazette (Ottawa), October 1942.

ownership of financial institutions, taxation, and condemnation of discrimination against race, color, or creed.

Adequate minimum wages were supported for all workers in industry, to be arrived at through collective bargaining. It was recommended that the staff of investigators of the national and regional war labor boards should be increased to eliminate delays in handling cases; that all meetings be public and all findings and decisions be made a matter of public record; and that applications be submitted to the boards only after attempts have been made to reach agreement through collective bargaining. The resolution called for "full and proper" cost-of-living bonuses for every worker and establishment of industry-wide wage stabilization in key industries such as those making automobiles, steel, and ships.

The convention maintained that industrial democracy is a solution to industrial strife and disharmony. Dominion legislation was favored similar to that contained in the National Labor Relations Act of the United States, which gives protection to workers who by majority vote in a given plant choose a bona-fide labor union as their bargaining agent. The convention called upon the Government to set an example of genuine industrial democracy by immediately guaranteeing collective bargaining and signed union contracts in plants owned and operated by the Government.

The incoming executive of the Canadian Congress of Labor was instructed to approach again the Trades and Labor Congress of Canada and the Confederation of Catholic Workers of Canada "with a view to joint action on all issues confronting the Canadian labor movement."

With respect to unemployment insurance, coverage was sought for additional groups, namely all Government employees and all workers not now included, regardless of income. The resolution also called for provision for assistance in sickness and hospitalization; no discrimination because of strike activities; benefits large enough to provide the requirements of health and decency; increased employer contributions; and payment to all unemployed, regardless of contribution, for the entire period of unemployment.

Recognition was urged by all Governments of the United Nations that all brains and energy of the people should be utilized to achieve victory and to achieve full employment and decent standards of living afterwards.

BRITISH TRADES UNION CONGRESS OF 1942 [1]

ALMOST 5½ million members were represented at the seventy-fourth annual Trades Union Congress, held in September 1942. Membership had increased by 353,550 over the total of 5,079,094 in 1941. The precedent of former wartime conferences was followed, in expressions of the unalterable resolve of labor to see the war through to complete and final victory. A resolution was again adopted calling for the modification of the provisions of the Trade Disputes and Trades Union Act of 1927. Other resolutions dealt with questions affecting the relations between trade-unions and Government departments and the social services. Considerable time was devoted to a debate on

[1] Data are from Great Britain, Ministry of Labor Gazette, September 1942; the Railway Review, London, September 18, 1942; daily press; and Monthly Labor Review, January and December 1941.

the post-war public education system, and a memorandum was adopted dealing with the revision of the system for children aged 11 years and over.

Union Membership

Unions affiliated with the Trades Union Congress, grouped according to industrial classification, increased their membership between 1941 and 1942, with a few exceptions—the glass, textile, clothing, paper, printing, etc., and water transport industries. Metals, machines, conveyances, etc., various forms of transport, local Government, and entertainment and sport showed substantial gains. Membership statistics are given for both years by groups in the accompanying table.

Membership of British Trades Union Congress, by Group, 1941 and 1942

Group or organization	1942	1941	Group or organization	1942	1941
All groups	5,432,644	5,079,094	Railway service	515,805	489,996
			Water transport	56,123	58,375
Agriculture, horticulture, etc.	50,100	45,100	Other transport (road, dock, etc.) and general labor	1,304,089	1,165,508
Coal mining	602,922	598,332	Commerce and distribution	309,484	304,592
Pottery and glass	20,073	21,605	Banking and insurance	82,378	71,291
Metals, machines, conveyances, etc.	1,120,115	973,073	Local government	183,145	121,924
Textiles	266,181	311,323	Entertainments and sport	26,153	17,820
Clothing (including boots and shoes)	211,945	240,663	All other groups	107,970	81,566
Paper, printing, etc.	189,145	202,589			
Building, woodworking and furniture manufacture, public works, contracting, etc.	387,016	375,337			

Action Regarding Trade-Disputes Act

An effort to obtain the repeal or revision of the Trade Disputes and Trades Union Act of 1927, limiting the right to strike and defining illegal picketing, has been made at the successive wartime sessions of the T. U. C. At the 1940 meeting, repeal was called for on the grounds that the unions could best cooperate with and assist the Government if they were unfettered in their methods of operation and in the same legal position as existed prior to its enactment. In 1941 the effort to obtain repeal was abandoned temporarily in the interest of national unity, but the congress proposed amendments in the law that would permit civil-service employees to affiliate with the T. U. C. and enable municipalities to make trade-union membership a condition of employment.

According to the report of the general council to the 1942 congress, the representatives of the T. U. C. had failed to reach a settlement of differences by negotiation with the Government. Disappointment was expressed and the membership voted to continue its efforts for removal of the curbs on unions.

Educational Reform

In the resolution dealing with education, reforms were advocated under which Government grants to sectarian educational establishments would be cut off and there would be no place for private schools. Under the T. U. C. plan all education would be free at

publicly owned schools, open to all parts of the population. The basis for the discussion was a special report of the general council entitled "Memorandum on Post-War Education."

Election of Officers

Miss Anne Loughlin was elected to head the general council of the T. U. C. This is the first time in the history of the organization that a woman has been chosen to fill the chairmanship. Miss Loughlin is a member of the National Union of Tailors and Garment Workers and was previously on the general council of the T. U. C. which she will head for the coming year. According to one of Britain's labor papers, her election is testimony of the appreciation that in the great struggle for freedom and democracy men and women are joined in an equal partnership.

Cost of Living

CHANGES IN LIVING COSTS IN LARGE CITIES, OCTOBER 1942

THE living cost of families of city workers rose 1.0 percent between September 15 and October 15, 1942. Most of the rise was due to the increase in food costs which occurred during the latter part of September and early October, prior to the action of the Office of Price Administration, which brought an additional 30 percent of the family food bill under price control as of October 5. There were further increases during the month in prices of some foods controlled by OPA, and in bituminous-coal prices, for which the OPA had authorized an increase on October 1 to meet increased mine prices. Charges for medical and personal services also advanced quite generally.

Between May 15 and October 15, 1942, food costs moved up by 6.6 percent and costs of all other goods and services by 0.2 percent. Costs of all goods and services under the control of the Office of Price Administration were 0.6 percent above the May 15 level, just before general retail price controls were established. Commodities and services not subject to control, largely foods and professional services, however, had risen 6.4 percent. The following statement shows the percent of change in the principal items in the cost of living from mid-September and from mid-May to October 15.

	Percent of change to Oct. 15, 1942, from—	
	Sept. 15, 1942	*May 15, 1942*
All items	+1.0	+2.6
Controlled by OPA	+.9	+.6
Controlled by other Government agencies	+.1	0
Uncontrolled	+1.6	+6.4
Food	+2.4	+6.6
Controlled by OPA prior to Sept. 15	+.2	+.4
Placed under OPA control on Oct. 5	+5.6	+16.8
Uncontrolled by OPA	+5.9	+16.7
Clothing	+.1	−.2
Rent	0	−1.7
Fuel, electricity, and ice	0	+1.2
Housefurnishings	0	+1.1
Miscellaneous	+.3	+.7

The rise in living costs between September 15 and October 15 brought the Bureau of Labor Statistics index for city wage earners and lower-salaried workers to 119.0 percent of the 1935–39 average. The October level was 20.7 percent above costs in August 1939, before war broke out in Europe.

Food costs.—With the rise of 2.4 percent in food prices in retail grocery stores, the family food bill in mid-October was 16 percent higher than in October 1941. The food-cost index of the Bureau of Labor Statistics was at 129.6 percent of the 1935–39 average, the highest point since May 1930.

The increase during the month was nation-wide, affecting all of the 51 cities surveyed. The greatest advances occurred in prices of butter and other dairy products, eggs, oranges, potatoes, and onions. There was also a substantial advance in prices of fresh fruits and vegetables, which are still not under OPA control. Prices of meats and certain other foods which were placed under OPA control on May 18 continued to edge up, and prices of canned fruits and vegetables advanced as the effect of the OPA order, permitting higher prices on the new pack, reached retail markets.

Clothing and housefurnishings.—Clothing costs in general showed little change between mid-September and mid-October. In several cities clothing costs decreased because of sales. Detroit was the only city in which a large increase was reported and this was due to the return to ceiling prices after September sales.

There were only scattered changes in prices of housefurnishings, primarily affecting bed sheets and blankets, in a few cities.

Reports from the Bureau's field staff all over the country indicate a definite decrease in the quantity of merchandise available in lower-priced lines; and poorer workmanship on many articles.

TABLE 1.—*Percent of Change From Sept. 15 to Oct. 15, 1942, in Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, by Groups of Items*

City	All items	Food	Clothing	Rent	Fuel, electricity and ice	Housefurnishings	Miscellaneous
Average: Large cities	+1.0	[1] +2.4	[2] +0.1	[4]	[5]	[6]	[2] +0.3
New England: Boston	+1.5	+3.3	−.2	[3]	[3]	[3]	+.7
Middle Atlantic:							
Buffalo	+1.2	+3.3	+.1	[3]	[3]	[3]	[3]
New York	+.9	+2.2	−.1	+0.1	[3]	−0.2	[3]
Philadelphia	+.5	+1.5	[3]	[3]	[3]	[3]	+.1
Pittsburgh	+1.0	+2.8	−.6	[3]	[3]	+.1	+.1
East North Central:							
Chicago	+1.4	+3.2	−.1	[3]	[3]	+.1	+.5
Cincinnati	+1.0	+2.5	+.2	+.3	[3]	−.2	[3]
Cleveland	+1.5	+3.5	−.1	−.1	+0.1	[3]	+.7
Detroit	+1.3	+2.8	+1.7	[3]	[3]	+.2	+.1
West North Central:							
Kansas City	+1.4	+2.7	−.3	−.6	[3]	+.3	+2.4
Minneapolis	+1.0	+2.7	[3]	+.3	[3]	+.2	[3]
St. Louis	+1.1	+2.5	+.2	[3]	[3]	[3]	+.4
South Atlantic:							
Baltimore	+.5	+2.0	−.1	[3]	+.1	[3]	[3]
Savannah	+1.2	+2.9	[3]	[3]	[3]	[3]	+.2
Washington, D. C	+.5	+1.1	[3]	−.1	[3]	[3]	+.6
East South Central: Birmingham	+.9	+2.2	[3]	[3]	+.6	[3]	+.4
West South Central: Houston	+.6	+1.6	[3]	[3]	[3]	[3]	+.1
Mountain: Denver	+.5	+1.3	−.2	[3]	[3]	[3]	+.2
Pacific:							
Los Angeles	+.7	+1.5	[3]	[3]	[3]	[3]	+.2
San Francisco	+.6	+.8	−.2	[3]	[3]	[3]	+1.0
Seattle	+.7	+1.7	[3]	[3]	[3]	[3]	+.3

[1] Based on data for 51 cities.
[2] Based on data for 21 cities.
[3] No change.
[4] No change; based on data for 21 cities. As noted in the report for September 1942, the Bureau is extending the coverage of its quarterly rent surveys to the suburbs in metropolitan areas. In all the areas covered except Washington, D. C., changes in suburban rents are similar to those in central cities. Rent control was initiated in the city of Washington on January 1, 1942, but not in the adjacent suburbs until July 1. Rents in Washington remained unchanged from June to September 1942, but rents in the suburbs declined 2.1 percent, bringing the index for the entire metropolitan area down by 0.2 percent. Changes from September to October have been measured on the basis of the rents in central cities only.
[5] No change; based on data for 34 cities.
[6] No change; based on data for 21 cities.

Rent.—There were relatively few changes in rents in the 21 large cities surveyed by the Bureau during the month. In Kansas City there was a drop of 0.6 percent in the rental bill of moderate-income families between September 15 and October 15, reflecting further the effect of Federal control established in that city on September 1. In Cincinnati and Minneapolis, the average rental bill rose slightly by 0.3 percent. In both of these cities, Federal control will not be established until November 1.

Other goods and services.—Bituminous-coal prices rose in 8 of the 34 cities surveyed. As of October 1, the OPA had authorized an upward adjustment in bituminous-coal prices at retail where necessary to take account of increased mine prices. Much higher prices for wood were also reported in a number of cities, and in Baltimore the price of fuel oil showed a further increase.

Advances in the cost of miscellaneous goods and services were due in large part to increased costs for doctors', dentists', and hospital charges; barber and beauty shop service rates; admissions to motion pictures; and newspapers in 2 cities. None of these services are under the control of the Office of Price Administration. In addition, railroad rates in the Southeast were increased on the authority of the Interstate Commerce Commission.

TABLE 2.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, by Groups of Items, October 15, 1942*

[Average 1935–39=100]

City	All items	Food	Clothing	Rent	Fuel, electricity and ice	House-furnishings	Miscellaneous
Average: Large cities	119.0	[1] 129.6	[2] 125.9	[3] 108.0	[4] 106.2	[2] 123.6	[2] 111.7
New England: Boston	117.9	128.5	122.2	105.1	116.3	118.3	110.2
Middle Atlantic:							
Buffalo	121.9	131.8	127.3	114.6	103.6	125.1	117.4
New York	117.4	128.0	125.7	103.3	109.0	117.6	110.5
Philadelphia	117.5	125.8	126.1	106.7	103.7	122.0	112.7
Pittsburgh	118.7	129.4	127.4	107.3	108.4	122.2	111.2
East North Central:							
Chicago	118.9	128.9	121.3	114.4	103.6	119.5	111.0
Cincinnati	119.2	130.1	130.2	105.4	102.5	125.0	111.3
Cleveland	121.4	131.8	128.3	115.0	112.2	123.9	111.3
Detroit	119.9	128.2	127.2	114.5	107.3	120.6	113.6
West North Central:							
Kansas City	116.3	124.0	123.1	107.9	106.0	117.3	113.2
Minneapolis	118.0	126.6	125.7	110.4	99.0	124.4	114.4
St. Louis	117.9	129.9	127.1	106.2	106.2	116.3	109.6
South Atlantic:							
Baltimore	120.4	133.8	125.6	106.7	104.7	127.6	112.3
Savannah	123.6	137.1	127.5	114.9	108.8	119.9	114.2
Washington, D. C.	117.7	129.5	131.8	100.3	103.6	129.1	114.2
East South Central: Birmingham	119.9	128.1	126.8	120.4	100.1	119.1	112.4
West South Central: Houston	118.7	132.9	126.7	108.8	92.9	122.2	111.1
Mountain: Denver	117.8	128.4	123.2	109.1	99.1	121.7	112.4
Pacific:							
Los Angeles	122.5	140.0	127.6	110.1	94.2	118.5	113.0
San Francisco	121.6	134.6	125.2	105.9	94.1	119.2	118.1
Seattle	123.5	139.6	128.9	109.8	100.5	119.6	116.8

[1] Based on data for 51 cities.
[2] Based on data for 21 cities.
[3] Based on data for 21 cities. As noted in the report for September 1942, the Bureau is extending the coverage of its quarterly rent surveys to the suburbs in metropolitan areas. In all the areas covered except Washington, D. C., changes in suburban rents are similar to those in central cities. Rent control was initiated in the city of Washington on January 1, 1942, but not in the adjacent suburbs until July 1. Rents in Washington remained unchanged from June to September 1942, but rents in the suburbs declined 2.1 percent, bringing the index for the entire metropolitan area down by 0.2 percent. Changes from September to October have been measured on the basis of the rents in central cities only.
[4] Based on data for 34 cities.

As of the first of November, the new excise taxes resulted in increases in prices of cigars, cigarettes, and smoking tobacco, telephone calls, and railroad fares.

TABLE 3.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, by Years 1935–41, by Months January 1941–October 1942*

[Average 1935–39=100]

Year	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
Jan. 15	100.8	97.8	100.7	105.0	100.8	100.1	101.9
Feb. 15	100.8	97.9	100.4	105.1	100.6	100.4	101.9
Mar. 15	101.2	98.4	102.1	105.1	100.7	101.6	101.9
Apr. 15	102.2	100.6	102.4	105.4	101.0	102.4	102.2
May 15	102.9	102.1	102.8	105.7	101.1	103.2	102.5
June 15	104.6	105.9	103.3	105.8	101.4	105.3	103.3
July 15	105.3	106.7	104.8	106.1	102.3	107.4	103.7
Aug. 15	106.2	108.0	106.9	106.3	103.2	108.9	104.0
Sept. 15	108.1	110.7	110.8	106.8	103.7	112.0	105.0
Oct. 15	109.3	111.6	112.6	107.5	104.0	114.4	106.9
Nov. 15	110.2	113.1	113.8	107.8	104.0	115.6	107.4
Dec. 15	110.5	113.1	114.8	108.2	104.1	116.8	107.7
1942:							
Jan. 15	112.0	116.2	116.1	108.4	104.3	118.2	108.5
Feb. 15	112.9	116.8	119.0	108.6	104.4	119.7	109.4
Mar. 15	114.3	118.6	123.6	108.9	104.5	121.2	110.1
Apr. 15	115.1	119.6	126.5	109.2	104.3	121.9	110.6
May 15	116.0	121.6	126.2	109.9	104.9	122.2	110.9
June 15	116.4	123.2	125.3	108.5	105.0	122.3	110.9
July 15	117.0	124.6	125.3	108.0	106.3	122.8	111.1
Aug. 15	117.5	126.1	125.2	108.0	106.2	123.0	111.1
Sept. 15	117.8	126.6	125.8	108.0	106.2	123.6	111.4
Oct. 15	119.0	129.6	125.9	108.0	106.2	123.6	111.7

Wage and Hour Statistics

EARNINGS IN AIRCRAFT-ENGINE PLANTS, MAY 1942[1]

Summary

STRAIGHT-TIME hourly earnings of first-shift workers in aircraft-engine plants averaged $1.039 in May 1942. The earnings of workers in individual occupations ranged from an average of 62.9 cents for learners and 80.0 cents for packers to $1.404 for floor molders. Approximately three-fourths of all first-shift workers were in jobs averaging $1 an hour or more.

Marked differences were found in the wage levels of the 20 establishments covered by the Bureau of Labor Statistics study. In part, these reflected the differences between incentive and straight-time earnings. No clear variation appeared to exist between the level of wages in the East and that in the Midwest.

Characteristics of the Industry

Held to tolerances as small as one ten-thousandth of an inch and developing a horsepower for each pound of weight, the modern aircraft engine is a highly complex mechanism demanding the utmost in precision machining. The workers who manufacture this essential war product are war workers par excellence. They are not, however, the same workers who produced engines before the outbreak of the war. Their number has increased manyfold during the past 2 years and, as a result of the introduction of mass-production methods, their skills and abilities have also changed.

The pre-war industry employed a large proportion of skilled, all-round mechanics. As production schedules mounted, however, aircraft-engine producers, like employers in other industries, experienced a dearth of such fully qualified workers. It became necessary to develop faster and more nearly automatic processes, and to divide productive processes in such a way that new specialized workers could master them in a relatively short time. The specialized workers who now predominate, although proficient and competent, are undoubtedly less skilled than the all-round mechanics who preceded them and who are still found in key jobs in the industry.

Aircraft-engine plants are widely distributed geographically. An overwhelming proportion of the output of the industry, however, comes from two relatively small areas. The first of these, the older and smaller of the two areas, includes the States of Pennsylvania, New Jersey, New York, and Connecticut. The other important area is made up of Ohio, Indiana, Michigan, and Illinois. The Pacific coast also accounts for a relatively small portion of the total output.

[1] Prepared in the Bureau's Working Conditions and Industrial Relations Branch by Louis M. Solomon and N. Arnold Tolles.

Plants manufacturing aircraft engines are not a homogeneous group. The eastern division, for example, includes fewer than 10 establishments, which differ widely in size and manufacture a wide variety of engines. Of the 5 eastern plants covered by this study, 2 have no union affiliation, 1 has a contract with a national labor organization, and 2 have contracts with an independent employee association.

The 15 midwestern [2] plants studied likewise display considerable variation in size and in type of product. From the standpoint of unionization, however, they are much more uniform than the eastern establishments. All but 3 of the plants have agreements with the United Automobile Workers, a C. I. O. affiliate. Two of these firms have contracts with unaffiliated organizations, and the remaining establishment has no union relations.

The plants along the East Coast are, for the most part, old-time producers of aircraft engines, designed for that express purpose. In contrast, most of the plants in the Midwest have been converted from the manufacture of automobiles or automobile engines.

Scope and Method of Survey

The present analysis of the wage structure of aircraft-engine plants is based upon data obtained in the course of a comprehensive study of the aircraft industry, embracing its four major divisions—frames, engines, propellers, and parts. Earlier reports [3] have presented wage data for the airframe branch; subsequent articles will deal with the manufacture of propellers and parts.

The wage data on which these surveys have been based were obtained by trained field representatives of the Bureau. The necessary data were transcribed by them directly from pay rolls or other records. The principal items of information secured were the straight-time average hourly earnings of first-shift workers in selected occupations, chosen because of their numerical importance or because they were key jobs. These occupations are estimated to account for some 80 percent of the first-shift workers.

The occupational wage rates obtained in this study were collected over a period ranging from the fall of 1941 to the summer of 1942. Data for most plants, however, represented the month of May 1942, and the figures for the remainder—chiefly eastern plants—were corrected to this date on the basis of information supplied by the plants concerned regarding general wage changes. It is recognized that the corrected figures for individual establishments are only approximate, tending perhaps to understate slightly the wage rates actually prevailing in May. Such plants, however, have relatively little weight in the industry as a whole and the industry totals presented in this article are believed to be reliable.

Recent Wage Trends

Hourly earnings of workers in plants manufacturing aircraft engines increased 35 percent between January 1941 and May 1942. In January 1941 hourly earnings, including extra overtime pay, averaged 88.9 cents; by May 1942 they had advanced to $1.201. The

[2] In order to avoid disclosure of individual operations, figures for one west-coast establishment have been included with those of midwestern plants.

[3] See Monthly Labor Review, issues of March, July, August, and October 1942.

increase over the intervening period was fairly regular and consistent. In July 1941 the average was $1.008; in December of that year, $1.150. These figures, to be sure, included substantial payments for late-shift work and for overtime at penalty rates; without such extra compensation the percent of increase would have been considerably less.

Both the eastern and midwestern areas contributed to the higher level of wages currently in effect. An increase in the wage level in one area was generally accompanied by a similar increase in the other. However, these regional increases in the level of earnings were not the result of a uniform, area-wide adjustment in rates. Although all establishments made some adjustment in rates during the period in question, some plants granted larger and and more frequent increases than the others. Increases in individual firms ranged from about 10 percent in one establishment to more than 40 percent in several others.

Average Hourly Earnings

FACTORS DETERMINING AVERAGE EARNINGS

Engine plants display considerable variation in the elements which enter into the determination of wages—base rate, total hours worked, overtime hours, provision for payment of such hours, and extra-shift premiums. The entrance rate paid to inexperienced male adult workers varied, for instance, from 50 cents to $1.01, with little uniformity in either major region. It may be seen from table 1, which shows the minimum hiring scales in effect in May 1942, that entrance rates in the eastern plants were generally somewhat lower than those paid by midwestern companies.

TABLE 1.—*Entrance Rates for Adult Male Workers in Aircraft-Engine Plants, by Region, May 1942*

Region	Number of establishments	Entrance rate	After 1 month	After 2 months	After 3 months	After 4 months	After 5 months	After 6 months	After 9 months	After 1 year
East	1	$0.50	------	------	------	------	------	------	------	$0.60
	1	.60	$0.65	$0.70	$0.75	------	------	------	------	------
	1	.60	------	------	.65	------	$0.70	$0.75	------	------
	1	.60	.65	.70	------	------	------	------	------	------
	1	.65	.70	------	.75	------	------	------	------	------
Midwest [1]	1	.50	.525	.55	.575	$0.60	.625	[2] .65	------	------
	1	.50	.55	.60	------	.65	------	.70	$0.75	------
	1	.55	------	------	.60	------	.65	------	------	------
	1	[3] .65	------	------	------	------	------	------	------	------
	1	.65	------	[4] .75	------	------	------	------	------	------
	1	.70	.75	.80	------	.85	.90	[5] .95	------	------
	1	.75	------	------	------	------	------	------	------	------
	1	.70	.75	.80	------	------	------	------	------	------
	3	.90	[6] 1.00	------	------	------	------	------	------	------
	1	1.01	1.06	------	1.11	------	------	------	------	------
	1	25 cents less than job rate	15 cents additional	5 cents additional	------	------	------	------	------	------
	1	10 cents less than job rate	5 cents additional	------	------	------	------	5 cents additional	------	------
	1	------do------	10 cents additional	------	------	------	------	------	------	------

[1] Includes 1 west-coast establishment.
[2] 2½ cents additional each month until job rate is reached.
[3] No automatic adjustment procedure.
[4] After 6 weeks.
[5] 5 cents additional each month until job rate is reached.
[6] After 3 weeks.

Table 2 presents the premium rates paid for work on extra shifts. Considerable variation in the shift differentials paid by the eastern establishments may be noted. The midwestern firms likewise had widely differing provisions, but a majority of these establishments pay either 5 cents, 5 percent, or 10 percent over the equivalent day-shift scale.

TABLE 2.—*Scale of Wages for Second and Third Shifts, in Aircraft-Engine Plants, by Region, May 1942*

Region	Number of establishments	Differential paid for—	
		Second shift	Third shift
East	1	10 percent	10 percent.
	1	do	8 hours' pay for 7½ hours' work at second-shift rates.
	1	7½ cents an hour	8 hours' pay for 6½ hours' work at seconds-hift rates.
	1	5 cents an hour	5 cents an hour.
	1	7½ percent	No third shift.
Midwest [1]	5	5 percent	5 percent.
	4	10 percent	10 percent.
	3	5 cents an hour	5 cents an hour.
	1	8¼ hours' pay for 7¾ hours' work	8¼ hours' pay for 7¼ hours' work.
	1	10 hours' pay for 9½ hours' work	No third shift.
	1	No second shift	Do.

[1] Includes 1 west-coast establishment.

In their provisions for overtime payment, aircraft-engine plants displayed complete uniformity, all establishments paying time and a half for hours in excess of 8 a day or 40 a week. Time and a half was generally paid for Saturday work as well, although one establishment paid double time for work on that day. Double time for Sunday work was much more common among midwestern plants than in the eastern units; whereas only 1 of the 5 eastern plants paid double time for Sunday work, 10 of the 15 midwestern firms did so.

In contrast to airframe workers, most of whom receive a straight hourly rate, many engine-plant employees were working under an incentive plan. Production-bonus plans were in effect for three of the eastern plants and one of the midwestern companies. Employees of a fourth eastern establishment were on a piece-work system. The five establishments with incentive plans accounted for more than one-third of the total number of workers in the industry. As is customary in Bureau studies, the extra earnings accruing to workers under these incentive systems have been included in the wage data presented in this report.

AVERAGE EARNINGS BY OCCUPATION

First-shift workers in aircraft-engine plants received straight-time hourly earnings averaging $1.039 in May 1942. This average is based on a study of the selected occupations for which separate data are shown in table 3. In view of the broad scope and representative nature of these occupations, there can be little doubt that the average is very close to that which would be obtained if all occupations were included. The disparity between this figure and the gross average of $1.201 presented earlier is due primarily to the influence of shift differentials and penalty overtime payments.

TABLE 3.—*Average Straight-Time Hourly Earnings of First-Shift Workers in Aircraft-Engine Plants, by Occupation, May 1942*

Occupation	Number of plants	Percent of total selected employees	Average hourly earnings	Individual plant average hourly earnings	
				High	Low
All selected occupations	20	100.0	$1.039		
Assemblers, bench and subassemblers	19	5.3	1.011	$1.368	$0.690
Assemblers, final	15	3.8	1.012	1.369	.744
Balancing-machine operators	11	.2	1.134	1.375	.943
Boring-mill operators	15	1.4	1.128	1.365	.936
Burrers and filers, hand	19	4.9	1.045	1.341	.647
Carpenters, maintenance	17	.5	1.023	1.240	.848
Clerks, shipping and receiving	18	1.2	.876	1.162	.671
Clerks, stock and stores	18	2.2	.926	1.162	.683
Coremakers	4	1.4	.940	1.255	.704
Drill-press operators, all-round	12	2.9	1.000	1.335	.721
Drill-press operators, multiple spindle	13	1.0	1.116	1.350	.720
Drill-press operators, radial	11	1.6	1.028	1.350	.732
Drill-press operators, single spindle	14	2.2	1.066	1.344	.727
Electricians, maintenance	16	.7	1.117	1.363	.811
Electroplaters	15	.5	1.082	1.213	1.030
Engine test mounters and dismounters	9	.7	.946	1.110	.770
Gear-cutter operators	15	1.1	1.106	1.350	.884
Grinder operators, all-round	10	.7	1.049	1.302	.934
Grinder operators, centerless	9	.4	1.143	1.298	1.020
Grinder operators, cylindrical	19	4.8	1.115	1.320	.837
Grinder operators, surface	18	1.3	1.109	1.334	.858
Grinder operators, thread	12	.4	1.144	1.321	.950
Guards	18	1.0	.952	1.151	.629
Heat treaters	15	.6	1.089	1.266	.750
Honing-machine operators	13	.4	1.072	1.382	.912
Inspectors, final assembly	10	.7	1.106	1.275	.935
Inspectors, magnaflux	17	.6	1.047	1.323	.600
Inspectors, packing	5	.6	1.107	1.110	1.090
Inspectors, parts and subassemblies	20	6.0	.898	1.337	.710
Inspectors, process	15	2.8	1.105	1.287	.720
Inspectors, receiving (raw stock)	13	.7	1.093	1.277	.875
Inspectors, tools, dies and jigs	16	1.5	1.088	1.404	.949
Janitors	18	2.9	.803	.975	.632
Laborers, foundry	4	1.3	.823	1.092	.719
Lappers, hand and machine	15	.6	1.053	1.350	.700
Lathe operators, engine	19	2.5	1.097	1.302	.868
Lathe operators, turret	17	3.4	1.110	1.328	.875
Learners	9	2.1	.629	1.088	.526
Machinists, general productive	10	.7	1.237	1.360	.806
Machinists, maintenance	5	.3	1.095	1.230	.996
Mechanics, engine service	7	.2	.994	1.233	.786
Milling-machine operators	19	4.5	1.118	1.340	.799
Millwrights	14	1.0	1.059	1.278	.793
Molders, floor	3	(1)	1.404	1.466	1.160
Molders, machine	3	.2	1.166	1.245	1.090
Oilers	14	.4	.878	1.134	.670
Packers	12	1.3	.800	1.060	.679
Painters, maintenance	10	.3	.952	1.291	.725
Painters, productive	17	.3	1.185	1.447	.850
Patternmakers, metal	3	.1	1.268	1.380	1.187
Patternmakers, wood	2	.1	1.370	1.400	1.357
Pipefitters	15	.6	1.060	1.346	.833
Polishers and buffers	18	3.5	1.192	1.338	.719
Repairmen, machine	14	.7	1.184	1.440	.963
Sand and shot blasters	13	.3	1.014	1.254	.725
Screw-machine operators, automatic	16	1.6	1.091	1.350	.800
Screw-machine operators, hand	8	.7	1.112	1.350	1.006
Set-up men, cutting tools	17	1.5	1.343	1.498	1.050
Supervisors, working, maintenance	11	.3	1.248	1.500	1.050
Supervisors, working, productive	17	3.0	1.335	1.468	.948
Supervisors, working, shipping, receiving and stock	14	.3	1.017	1.230	.814
Tear-down disassemblers and inspectors	11	1.9	1.066	1.268	.705
Testers, engine	14	2.3	.982	1.289	.770
Testers, parts and subassemblies	9	.3	.915	1.188	.659
Tool-crib attendants	19	1.4	.902	1.176	.649
Tool and cutter grinders	18	1.6	1.100	1.300	.900
Tool makers	18	1.4	1.286	1.490	1.032
Tool-room machinists and machine operators	14	.7	1.150	1.323	.975
Truckers, hand	14	.6	.825	1.077	.647
Truckers, power	15	.5	.863	1.178	.677
Washers, parts, hand or machine	17	.5	.909	1.207	.650

[1] Less than a tenth of 1 percent.

The individual occupations show averages ranging from 62.9 cents an hour for learners and 80.0 cents for packers up to $1.404 for floor molders. Almost three-fourths of the workers, however, were in occupations averaging $1 per hour or more. Inspectors of parts and subassemblies, the largest single group, averaged 89.8 cents. Bench assemblers, the next largest group, averaged $1.011.

It will be noted that even within the same occupational groups there was a wide range between the highest average and the lowest for individual establishments. For example, engine-lathe operators averaged only 86.8 cents an hour in one establishment but $1.302 in another. The range for milling-machine operators was from 79.9 cents to $1.34. Such variations are due in part to differences in the method of wage payment, plants paying on an incentive basis usually having higher wages than those with straight hourly rates. In part, however, they result from actual wage differences for identical work.

A study of plant averages for all of the selected occupations combined reveals that general straight-time hourly earnings are about the same in the East as in the Midwest. The average for the plants formerly engaged in the production of automobiles and automobile engines, moreover, is approximately the same as that for all other plants combined. In this respect the wage structure differs markedly from that of the airframe industry, in which plants converted from automobile production pay wages substantially above the industry average. In general, the largest plants tend to pay the highest wages; there are striking exceptions to this rule, however. Size of community appears to exercise no consistent influence.

EARNINGS IN MANUFACTURE OF MISCELLANEOUS METALWORKING MACHINERY, 1942 [1]

Summary

THIS report on earnings in plants manufacturing various types of metalworking machinery is the tenth in the series undertaken by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on the several branches of the machinery industry.[2]

Virtually all of the 38 plants included in this survey were in direct war work, but relatively little plant conversion had occurred.

Employment in these plants more than doubled between August 1939 and the spring of 1942, and average earnings increased about 11 cents per hour. It is estimated that at least half of this rise in earnings is a result of increases in extra payments for overtime and night work. Exclusive of such extra payments, hourly earnings of day-shift workers in the more important occupations averaged 82.1 cents. Approximately a fourth of the workers studied were classified in the 22 ocupational groups which showed average earnings above $1 per hour.

Scope and Method of Survey

In order to provide basic information on the effects of the transition to a war economy on technological processes, occupational patterns, and wage structures, the Bureau of Labor Statistics has undertaken a series of studies in establishments manufacturing various types of machinery and similar products. Each of the industrial branches covered in this series is defined in terms of the principal products of the various plants during the year 1939 as reported by the Census of Manufactures. Important changes in type of product are to be expected, especially because the war emergency has accentuated the shifts in production that would ordinarily occur over a 3-year period. The data on these changes are in themselves significant, however, and it is thus useful to begin with the 1939 classification as a starting point.

Reports of the latest Census of Manufactures (1939) show 178 plants "primarily engaged in the manufacture of machinery for the shaping, pressing, or forging of metal, where the shaping action of such machines is not dependent upon a cutting tool."[3] The present survey includes 38 plants, or slightly more than a fourth of the 143 establishments which employed an average of 6 or more workers in 1939. Over half the plants and employees in this industry are found in the North Central States, with the concentration heaviest in Ohio, Illinois, and Michigan. Most of the remaining plants are in the Middle Atlantic and New England States; New York, New Jersey, Pennsylvania, Connecticut, and Massachusetts are the more important. The plants selected for study are distributed in essentially the same manner.

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[1] Prepared in the Bureau's Division of Wage Analysis by Harold R. Hosea.

[2] Previous articles in this series have appeared in each issue of the Monthly Labor Review, May–November 1942; individual reports are available on request.

[3] I. e., Census industry No. 1749.

The data for the present survey were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage data on individual employees are limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, however, occupational earnings rates were compiled for 80 to 90 percent of the wage earners on first (day) shifts. The earnings data shown in this report are based, in most instances, on a representative pay-roll period during April, May, or June 1942.

Characteristics of the Industry

Type of product.—The machinery manufactured by plants classified in this industry is of many different types. The more important are presses, tools, rolling machinery, and forging equipment. In view of the wide variety of products involved, these plants cannot be regarded as a highly homogeneous group. This fact is, incidentally, reflected in the occupational characteristics of the plants studied.

As in the case of machine tools, which were discussed in a previous report in this series, relatively little conversion has been necessary in this industry because it was already making products important in the war effort. The changes that have been made are minor in comparison with those which some of the other industrial divisions have undergone. Typical is the plant in which facilities for making can machinery have been converted to the production of equipment for the manufacture of shells. Virtually all of the plants in this industry are directly involved in the war program; over two-fifths of those studied were assigned high priority ratings as early as 1940.

The labor force.—Detailed earnings data were compiled for about 70 percent of all the workers employed in the 38 plants studied; this group constitutes 80 to 90 percent of the day-shift workers. Slightly more than a third (34.1 percent) were working at jobs regarded as skilled, 40.8 percent were doing semiskilled work, and the remaining fourth (25.1 percent) were unskilled workers. This skill distribution conforms closely to that for the machinery industries as a group.

Aside from the central-office personnel, practically all of the women employed in these 38 plants were found in 1 large establishment; a few women were reported by 3 other plants. Most of them were working as bench assemblers, drill-press operators, inspectors, and winders. Negroes constituted about 1 percent of the total employment in the plants studied, but they were found in only 9 of the 38 plants; only 2 plants reported more than 6 Negro workers each.

Eight of the plants studied were operating under agreements with nationally affiliated unions; 4 had agreements with the Congress of Industrial Organizations, 3 with the American Federation of Labor, and 1 with the Mechanics Educational Society of America. The union plants were principally those of medium size; none of the plants with fewer than 50 workers was organized, and only 1 of the 3 largest reported a union agreement. In addition to these 8 plants, 4 reported agreements with independent unions.

Method of wage payment.—The great majority of the workers in this industry are paid on the basis of straight hourly rates. Only 4 of the plants studied reported incentive systems and about two-fifths

of their employees were paid piece or bonus rates; these workers constituted less than 3 percent of the total studied in the 38 plants.

About a fourth (10) of the plants paid no extra amounts for overtime beyond minimum statutory requirements, i. e., time and a half over 40 hours per week. Twenty-seven applied this rate to all work above 8 hours in 1 day. Six plants paid time and a half for all Saturday work and 1 applied this rate after noon on that day. Of the 15 plants making special provisions for additional pay on Sundays, 7 paid time and a half and 8 paid double time. One plant paid double time for all work in excess of 11 hours in 1 day; another used a similar method but the limit was 12 hours.

Sixteen of the plants were operating 2 shifts at the time this study was made. Eight paid no premium for second-shift work, and the remainder added various amounts on a flat or percentage basis (table 1). Of the 13 plants operating 3 shifts, 3 paid no premium to workers on either late shift. Seven plants paid essentially the same bonuses to workers on both late shifts; an additional 5 cents per hour was the most common amount. One plant paid no premium for second-shift work, but added a half hour's pay to the earnings of third-shift employees. The remaining 9 plants were operating a single shift.

TABLE 1.—*Wage Differentials for Second and Third Shifts in Miscellaneous Metalworking-Machinery Plants, April–June 1942*

Number of shifts worked	Number of plants	Second shift	Third shift
Plants with 1 shift only	9		
Plants with 2 shifts	8	No differential	
	1	5 cents per hour	
	1	5 cents per hour up to 75 cents; 10 cents per hour over 75 cents.	
	1	8 cents per hour	
	2	10 cents per hour	
	2	5 percent over base rate	
	1	7.5 percent over base rate	
Plants with 3 shifts	3	No differential	No differential.
	1	do	8 hours' pay for 7.5 hours' work.
	4	5 cents per hour	5 cents per hour.
	2	do	10 cents per hour.
	1	10 cents per hour	Do.
	1	5 percent over base rate	5 percent over base rate.
	1	5 percent over base rate for unskilled; 10 percent for semiskilled.	5 percent over base rate for unskilled; 10 percent for semiskilled.

Hours and Earnings

TREND, 1939–42

It is not possible to present for this industry detailed data on the trend of earnings similar to those shown in previous reports in this series. Several firms were unable to supply complete information, and the particular intervals selected for study in this series happened in several instances to coincide with periods of unrepresentative plant operations. On the basis of such data as could be obtained, it is estimated that, in general, earnings increased by about 11 cents per hour between August 1939 and the spring of 1942 when the average was 91.3 cents. This figure is, however, inflated by extra payments for overtime work, since the average workweek rose from 39 to nearly 52 hours during this period. The actual increase in rates appears,

therefore, to have been small, presumably not more than 5 to 7 cents per hour. Employment in these plants more than doubled during the same period.

PLANT AVERAGES

Average hourly earnings, including extra payments for overtime and night work, amounted to 91.3 cents per hour for the 38 plants as a group. Five of the 38 showed plant averages below 75 cents per hour and 8 amounted to $1 or more. The averages for slightly more than half the plants were between 80 cents and $1 per hour.

Wide differences in the types of products manufactured by these plants obscure any variations in levels of earnings which may be associated with such factors as location and size of plant. Since union plants and incentive systems, both of which tend to influence earnings, are decidedly the exception among the plants studied, these factors are presumably unimportant.

The workers for whom detailed earnings data were compiled received an average of 82.1 cents per hour, exclusive of extra payments for overtime and night work. Since these workers constitute a substantial proportion of the total labor force in the entire 38 plants, this figure is believed to be a fairly accurate index of actual wage levels. The corresponding rate for male workers was a little more than 1 cent above the general average—83.5 cents per hour. The average for women was 55.6 cents.

OCCUPATIONAL DIFFERENCES IN EARNINGS

About a fourth (24.6 percent) of the workers studied in detail were classified in the 22 occupational groups which showed average earnings above $1 per hour, exclusive of premiums for overtime and night work (table 2). The highest average was received by floor molders—$1.196 per hour. The largest single group in this category was made up of the class A floor assemblers who earned an average of $1.020.

TABLE 2.—*Average Hourly Earnings* [1] *of Day-Shift Workers in Selected Occupations in Miscellaneous Metalworking-Machinery Plants, April–June 1942*

Occupation and class	Percent of workers	Average hourly earnings	Occupation and class	Percent of workers	Average hourly earnings
All workers	100.0	$0.821	Male workers—Continued.		
Male workers	95.2	.835	Broaching-machine operators	0.2	$0.843
Acetylene-burner operators	.4	.890	Buffers	.7	.693
Apprentices:			Burrers:		
First year	.6	.566	Class B	.3	.712
Second year	.6	.560	Class C	.4	.636
Third year	.2	.727	Carpenters:		
Fourth year	.1	.791	Class A	.2	1.052
Assemblers, bench:			Class B	.3	.797
Class A	2.7	1.040	Class C	.1	.707
Class B	2.2	.836	Casting cleaners	.9	.740
Class C	3.6	.719	Chippers:		
Assemblers, floor:			Class B	.2	.888
Class A	3.3	1.020	Class C	.1	.563
Class B	2.8	.854	Coremakers, hand	.3	1.149
Class C	2.6	.699	Coremakers' helpers	.1	.772
Blacksmiths	.3	1.062	Crane followers	.3	.888
Boring-mill operators:			Crane operators	1.4	.841
Class A	1.9	1.145	Craters	.6	.774
Class B	1.0	.914	Cupola tenders	.1	.898

[1] Averages are based on actual earnings exclusive of extra payments for overtime.

TABLE 2.—*Average Hourly Earnings of Day-Shift Workers in Selected Occupations in Miscellaneous Metalworking-Machinery Plants, April–June 1942*—Continued

Occupation and class	Percent of workers	Average hourly earnings
Male workers—Continued.		
Drill-press operators:		
Class A	1.4	$0.955
Class B	1.8	.761
Class C	1.2	.606
Drop-hammer operators, class A	.1	1.178
Electrician	.8	.933
Elevator operators	.1	.820
Firemen, stationary boiler	.3	.799
Flask and pattern carriers	.1	.770
Foremen, working:		
Class A	1.0	1.166
Class B	.6	.996
Class C	.2	.897
Gear cutters:		
Class A	.3	.984
Class B	.3	.800
Grinding-machine operators:		
Class A	1.1	.978
Class B	1.4	.740
Class C	.1	.663
Heat treaters:		
Class A	.2	.986
Class B	.3	.686
Helpers:		
Journeymen	1.2	.757
Machine operators	2.8	.683
Inspectors:		
Class A	.8	1.082
Class B	.6	.769
Class C	.4	.581
Janitors	1.6	.625
Job setters	.2	1.079
Laborers	3.4	.638
Laborers, foundry	.8	.680
Lathe operators, engine:		
Class A	3.1	1.072
Class B	2.5	.866
Class C	.5	.663
Lathe operators, turret:		
Class A	1.8	1.031
Class B	1.1	.767
Lay-out men:		
Class A	.4	1.161
Class B	.1	.948
Learners:		
Journeymen and others	2.7	.572
Machine operators	4.1	.606
Machinists:		
Class A	.5	1.021
Class B	.2	.851
Metal-saw operators	.3	.719
Milling-machine operators:		
Class A	1.5	1.029
Class B	1.7	.739
Millwrights	.6	.938
Molders:		
Bench	.1	1.044
Floor	.6	1.196
Molders—Continued.		
Helpers	0.1	$0.723
Packers	.7	.730
Painters:		
Brush	.9	.723
Dip	.1	.840
Spray	.3	.766
Patternmakers, wood	.8	1.149
Pipefitters	.3	.982
Planer operators	2.9	1.054
Platers	.2	.970
Punch-press operators:		
Class A	.2	.893
Class B	.2	.722
Repairmen, machine	.5	.944
Sandmixers, machine	.1	[1]
Screw-machine operators:		
Class A	.5	1.061
Class B	.5	.794
Class C	.4	.700
Shake-out men	.1	.673
Shaper operators	1.4	.871
Sheet-metal workers:		
Class A	.2	[1]
Class B	.3	.852
Solderers, class B	.1	.888
Stock clerks	3.4	.700
Testers, class A	.1	.935
Thread-milling-machine operators	.1	1.060
Time clerks	1.0	.681
Tool and die makers	1.5	1.129
Tool-grinder operators	.4	.962
Truck drivers	.3	.794
Truckers:		
Hand	.9	.606
Power, inside	.1	.782
Watchmen	1.6	.692
Welders, hand:		
Class A	.8	.973
Class B	.6	.798
Welders, machine	.1	.951
Winders, class A	.1	.977
Female workers	4.8	.556
Assemblers, bench:		
Class B	.8	[1]
Class C	1.7	[1]
Drill-press operators, class C	.5	[1]
Grinding-machine operators, class B	.1	[1]
Inspectors, class C	.7	.492
Learners, machine operators, others	.2	[1]
Packers	.2	[1]
Punch-press operators, class C	.1	[1]
Winders:		
Class A	.2	[1]
Class B	.3	[1]

[1] Number of plants and/or workers too small to justify the computation of an average.

With the exception of some groups of learners and apprentices, only 2 groups of male workers showed averages below 60 cents per hour. These were the class C chippers and class C inspectors which together formed only half of 1 percent of the total studied.

Class C inspectors constituted the only group of woman workers for which the data were sufficiently adequate to warrant the computation of an average. Their rate of 49.2 cents per hour was about 6 cents per hour below the average for all women whose earnings were studied in detail.

EARNINGS IN MANUFACTURE OF FOOD-PRODUCTS MACHINERY, 1942 [1]

Summary

THIS report on earnings in plants manufacturing various types of food-products machinery is the eleventh in the series undertaken by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on the several branches of the machinery industry.[2]

In the summer of 1942, over two-thirds of the 63 plants included in this survey reported that their production had high priority ratings, and of these, 17 were manufacturing war materials. Sixteen plants, mostly the larger ones, were devoting 90 percent or more of their facilities to war production. In general, only minor technological changes appear to have been necessary.

Employment in the plants in this industry more than doubled between August 1939 and the summer of 1942, and average hourly earnings increased 17.8 cents (from 67.3 to 85.1 cents) per hour during the same period. This increase, however, was partly a result of additional overtime payments involved in the lengthening of the average workweek by over 8 hours; the actual increase in rates is estimated at about 11 cents an hour. On the basis of size of plant, hourly earnings varied from 77.4 cents in plants with 51 to 250 workers to 91.9 cents in those with 251 or more employees. Wages in the North Central region were about 5 cents per hour higher than in the Northeast. The industry is concentrated in these two sections.

About a seventh of the male workers for whom detailed earnings data were compiled were in occupations with average hourly earnings in excess of $1 per hour; approximately a sixth were in groups averaging less than 60 cents an hour. Plants in small cities had about the same wage rates as those in the larger centers.

Scope and Method of Survey

In order to provide basic information on the effects of the transition to a war economy on technological processes, occupational patterns, and wage structures, the Bureau of Labor Statistics has undertaken a series of studies in establishments manufacturing various types of machinery and similar products. Each of the industrial branches covered in this series is defined in terms of the principal products of the various plants during the year 1939 as reported by the Census of Manufactures. Important changes in type of product are to be expected, especially because the war emergency has accentuated the shifts in production that would ordinarily occur over a 3-year period. The data on these changes are in themselves significant, however, and it is thus useful to begin with the 1939 classification as a starting point.

Reports of the latest Census of Manufactures (1939) shows that in the United States 379 plants were "primarily engaged in the

[1] Prepared in the Bureau's Division of Wage Analysis, by Oscar F. Brown. The study was directed and the preparation of the report supervised by Harold R. Hosea.

[2] Previous articles in this series have appeared in each issue of the Monthly Labor Review, May–November 1942; individual reports are available on request.

manufacture of machinery for use by the food-products and beverage industries in the preparation, canning, or packaging of foods."[3] Of this total, 118 establishments reported fewer than 6 wage earners, and were excluded from the scope of this survey. The remaining 261 plants employed an average of 13,648 workers during 1939, and approximately a fourth were working in the 63 establishments included in this study. Somewhat less than half the plants (44.9 percent) and nearly three-fifths (56.0 percent) of the employees were found in the North Central States, with the heaviest concentration in Illinois and Ohio. Most of the remainder of the industry was in the Northeast, with New York the most important single State. This northeastern area included about a third of the industry's plants and employees.

The data for the present survey were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage data on individual employees are limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, however, earnings by occupation were compiled for 80 to 90 percent of the wage earners on first (day) shifts. The current earnings data shown in this report are based, in most instances, on a representative pay-roll period during May, June, or July 1942.

Characteristics of the Industry

TYPE OF PRODUCT

The types of machinery produced in this industry vary widely. The more important items of equipment (each type in itself often including impressive numbers and varieties of machines) are baking, dairy, bottlers', grain-mill, canning, ice-cream-making, and meat-packing machinery. To these products can be added an important group of small slicing, mixing, whipping, and food-chopping machines. It may be noted, however, that about a fifth of the national output of food-products machinery, parts, and equipment made in 1939 was in the form of secondary products of other industries.

PRODUCTION OF WAR MATERIALS

During 1940, the use of facilities in defense production was not a factor of any importance in this industry. By the end of that year, only 2 out of a sample of 63 plants were producing materials directly connected with the defense program; in 1941, the figure had increased to 6 plants, 1 of which was employing over 75 percent of its facilities on war work; in the same year 32 plants were given high priority ratings.

By the summer of 1942, 17 plants were manufacturing direct war materials, and the production of over two-thirds of the plants surveyed had some connection with defense. Of this group, 9 plants were devoting between 50 and 90 percent, and 16 plants 90 percent or more, of their facilities to war production. A greater percentage

[3] Census industry No. 1751.

of the large than of the small plants appear to be employing substantial proportions of their facilities on war work; of the 9 plants with more than 250 workers included in the survey, war production absorbed over 50 percent of output by value in the case of 5.

For the most part, the plants in this industry employed their regular facilities to produce war materials, although some conversion proved to be necessary. The articles being produced varied widely from the usual output, and included ordnance supplies, tank turrets, aircraft-gun parts, gun mounts, and truck parts. The striking examples of conversion included one plant which changed its output from dairy equipment to radio-transmitter antennas, another from bakery equipment to shells, and a third from canning equipment to marine condensers.

THE LABOR FORCE

Detailed earnings data were compiled for about 70 percent of all the workers employed in the plants studied; this group amounts to between 80 and 90 percent of those on day shifts. A third (33.4 percent) of the employees for whom wage and occupational data were collected may be classified as skilled, 43.6 percent were doing semiskilled work, and the remaining 23 percent were unskilled workers.

The food-machinery plants included in this survey employed slightly smaller percentages of unskilled workers than are found in most of the establishments in related machinery-manufacturing industries. This variation is probably due, at least in part, to the predominance of small plants in this industry and to the consequent lack of emphasis on mass-production techniques.

At the time the present survey was made, women, aside from office personnel, constituted less than 4 percent of the factory workers studied. All of the 315 women listed were found in 8 plants, where they comprised 12 percent of the total working force. Most of them were working as bench assemblers, drill-press operators, inspectors, and winders. One firm employed 4 women as hand coremakers.

Negroes were employed in 14 plants in which they constituted 3.8 percent of all employees; they accounted for 1.5 percent of total employment in the 63 plants studied. Three-fifths of all the Negroes found were working in 2 Ohio plants. Their principal occupations were as laborers and janitors, although the one plant which employed two-fifths of the Negroes included in this survey reported their being engaged as foundry workers, shake-out men, and coremakers' and molders' helpers.

Only 11 of the 63 plants included in this survey had agreements with nationally affiliated unions. Seven of these union agreements were with the American Federation of Labor and 4 with the Congress of Industrial Organizations. In addition, there were independent labor unions in 7 plants. The 45 remaining plants in the survey were not unionized. Unions were found in plants of all sizes, but there were only 6 organized plants in the group of 29 with fewer than 50 employees each. Of the 9 plants with over 250 workers each, 4 were unionized, and these employed over half the workers in all plants of that size group. None of the 4 southern plants included in the survey had an agreement with a national union.

METHOD OF WAGE PAYMENT

Largely because of the lack of standardization resulting from the wide variety of products manufactured in this industry, all of the 23 plants with fewer than 50 workers paid on a straight hourly rate basis; this method also applied to all but 1 of the plants with fewer than 100 employees. In the 63 plants as a group, however, about a sixth (16 percent) of the workers were paid under some incentive system. In the 10 plants which made use of such systems—and in which almost a half (47 percent) of the workers in all the plants studied were employed—about a third (35 percent) were paid on an incentive basis.

Two-fifths (28) of the establishments paid no extra overtime rates in excess of the statutory requirements, i. e., time and a half for all work over 40 hours a week. Thirty-one plants paid the same rate for work in excess of 8 hours in 1 day, and in 12 plants this rate was paid for all Saturday work. Eight establishments paid on this same basis for holiday work, and 10 paid time and a half for Sunday operation. In one case, time and a half was paid for all work before or after regular working hours. Double-time rates were effective on Sunday in 10 establishments; in 7 cases the same rate applied on holidays.

Of the 63 plants studied, 24 operated on a single-shift basis, 25 operated 2 shifts, while 14 reported 3 shifts (table 1). In the group of 25 plants reported as operating 2 shifts, 6 paid no shift differential, 5 paid 5 cents, and 9 gave a bonus which amounted to about 10 cents per hour. One firm paid an 8-hour rate for a 7.5-hour second shift; another gave second-shift workers a $25 war bond each second month. Fourteen establishments worked both a second and a third shift, 5 of which paid no shift differentials. Six plants paid the same bonus for both shifts—one of 3 cents, four of approximately 5 cents, and one of 10 percent above the regular rate.

TABLE 1.—*Wage Differentials for Second and Third Shifts in Food-Products-Machinery Plants, May–July 1942*

Type of plant	Number of plants	Second shift	Third shift
Plants with 1 shift only	24		
Plants with 2 shifts	6	No differential	
	5	5 cents per hour	
	5	10 percent over base rate	
	3	10 cents per hour	
	1	8 hours' pay for 7.5 hours' work	
	1	2½ to 5 cents per hour	
	1	$25 war bond each 2 months	
	1	1 hour's additional pay	
	1	10 percent over base rate, with a 10-cent maximum.	
	1	11⅑ percent over base rate	
Plants with 3 shifts	5	No differential	No differential.
	3	5 cents per hour	5 cents per hour.
	1	3 cents per hour	3 cents per hour.
	1	5 cents per hour	10 cents per hour.
	1	5 percent over base rate	5 percent over base rate.
	1	do	7½ percent over base rate.
	1	10 percent over base rate	10 percent over base rate.
	1	do	15 percent over base rate.

Employment, Hours, and Earnings

TREND, 1939–42

Comparable data on employment for selected periods in 1939–42 are available for 57 of the 63 plants studied. Employment in these establishments more than doubled during this period—the increase was from 3,128 in August 1939 to 6,342 in May–July 1942 (table 2). Average hourly earnings (including extra overtime payments), which amounted to 67.3 cents in August 1939, had increased to 85.1 cents by May–July 1942, a gain of 17.8 cents.

During the same period, the average workweek in these plants had lengthened 8.4 hours, from 40.6 to 49.0, a change which progressively inflated hourly rates by increased premiums for overtime. The elimination of such extra payments is estimated to reduce the average hourly earnings for the latest period by 8 cents, or to about 76.9 cents. Exclusive of the effect of premium overtime payments, hourly rates increased by an estimated 11.7 cents, or nearly 18 percent, during the 3-year period. The 6 plants for which comparable data covering the earlier periods were not available employed nearly 600 workers, but the addition of wage data for these plants reduces the average hourly earnings for the latest period by only 0.4 cents.

TABLE 2.—*Employment, Average Hourly Earnings and Weekly Hours of Workers in 57 Food-Products-Machinery Plants, in Specified Periods, 1939–42*

Year and month	Total wage earners [1]	Average hourly earnings [2]	Estimated average hourly earnings, exclusive of extra overtime earnings	Average weekly hours
August 1939	3,128	$0.673	$0.652	40.6
April 1940	3,675	.675	.652	41.0
August 1940	3,767	.685	.654	42.5
February 1941	4,171	.715	.680	43.0
August 1941	5,198	.770	.719	45.0
May–July 1942	6,342	.851	.769	49.0

[1] Data for 5 companies used with reduced weight to avoid overrepresentation of large plants.
[2] Averages include extra payments for overtime and night work.

PLANT AVERAGES

Nearly a third (20) of the plants surveyed showed average hourly earnings, including extra payments for overtime, of 90 cents or more, and, of these, 7 widely scattered establishments had an average of $1 or more. At the other extreme there were 11 plants which showed average hourly earnings below 65 cents; of the 31 plants surveyed in the North Central region, only 2 fell in this group, while slightly over a fourth of those in the Northeast and 3 of the 4 Southern plants were in this category.

Although there is a tendency for average hourly earnings to vary directly with plant size, the relationship is not uniform in this industry. Thus, average earnings in plants employing over 250 workers were 11.4 cents above the average of 80.5 cents per hour in plants with fewer than 51 workers, but in plants having between 51 and 250 employees, the rate was 77.4 cents, or about 3 cents below earnings in

the smaller plants. This fact is probably due in part to the organization of many of the small plants on a job basis in which higher proportions of skilled workers are employed. This tendency for medium-sized plants to pay less than the smaller ones was marked only in the North Central States. The apparent wage advantage of workers in the largest plants was, of course, due in part to the prevalence of incentive payment among such plants.

While the combined average (87.4 cents) for the 31 plants in the North Central region was 5 cents above the rate of 82.4 cents per hour for the 22 plants in the Northeast, this difference cannot be considered as conclusive. Such variations in regional rates are obscured by other and more important factors in an industry extremely heterogeneous with respect to products, methods of plant operation, and systems of wage payment. Allowance should also be made for the fact that of the 11 unionized plants included in the survey only 2 were in the Northeastern States.

OCCUPATIONAL DIFFERENCES IN EARNINGS

Occupational averages for male workers (excluding apprentices) in the manufacture of food-products machinery ranged from 47.4 cents for class C burrers to $1.168 for class A hand coremakers, excluding premiums for overtime and night work (table 3). The general hourly average for all workers in the occupations studied in detail was 77.3 cents; if woman workers are not included, the figure is raised to 77.8 cents.

TABLE 3.—*Average Hourly Earnings [1] of Day-Shift Workers in Selected Occupations in Food-Products-Machinery Plants, by Regions, May–July 1942*

Occupation and class	Northeastern and North Central States		Northeastern States		North Central States	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
All workers	4,394	$0.773	1,938	$0.737	2,456	$0.801
Male workers	4,324	.778	1,912	.741	2,412	.809
Acetylene-burner operators	8	.760	8	.760		
Apprentices, first year	44	.463	19	.406	25	.507
Apprentices, second year	27	.566	10	.465	17	.631
Apprentices, third year	16	.608	10	.557	6	.690
Apprentices, fourth year	3	(2)	2	(2)	1	(2)
Assemblers, bench, class A	89	.914	39	.900	50	.925
Assemblers, bench, class B	114	.762	59	.725	55	.802
Assemblers, bench, class C	111	.582	60	.531	51	.636
Assemblers, floor, class A	150	1.021	39	.970	111	1.039
Assemblers, floor, class B	172	.787	66	.750	106	.811
Assemblers, floor, class C	142	.592	47	.598	95	.589
Blacksmiths	19	1.016	8	.823	11	1.172
Boilermakers	9	(2)	9	(2)		
Boring-mill operators, class A	54	1.063	21	1.123	33	1.024
Boring-mill operators, class B	32	.785	16	.845	16	.726
Broaching-machine operators	5	(2)	1	(2)	4	(2)
Buffers	72	.766	10	.776	62	.764
Burrers, class B	14	.588	4	.715	10	.535
Burrers, class C	21	.474	13	.474	8	.474
Carpenters, class A	6	(2)	3	(2)	3	(2)
Carpenters, class B	26	.775	18	.779	8	.767
Carpenters, class C	21	.661	19	.668	2	.599
Casting cleaners	12	1.056	1	(2)	11	1.098
Chippers, class B	17	.767	2	(2)	15	.776
Chippers, class C	10	.547	10	.547		

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings* [1] *of Day-Shift Workers in Selected Occupations in Food-Products-Machinery Plants, by Regions, May–July 1942*—Continued

Occupation and class	Northeastern and North Central States		Northeastern States		North Central States	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Male workers—Continued.						
Coremakers, hand, class A	23	$1.168			23	$1.168
Coremakers' helpers	5	.706			5	.706
Crane followers	5	(2)			5	(2)
Crane operators	20	.819	2	(2)	18	.841
Craters	47	.733	21	$0.642	26	.807
Cupola tenders	7	(2)			7	(2)
Cupola tenders' helpers	6	(2)			6	(2)
Drill-press operators, class A	65	.903	34	.925	31	.878
Drill-press operators, class B	89	.715	51	.718	38	.712
Drill-press operators, class C	74	.588	45	.582	29	.597
Electricians, class A	25	.943	14	.856	11	1.055
Firemen, stationary boiler	9	.700	4	.608	5	.774
Foremen, working, class A	49	1.157	20	1.144	29	1.166
Foremen, working, class B	25	.942	3	.858	22	.953
Foremen, working, class C	12	.758	3	.720	9	.772
Gear cutters, class A	5	.992			5	.992
Gear cutters, class B	3	(2)	1	(2)	2	(2)
Grinding-machine operators, class A	27	1.019	12	1.050	15	.995
Grinding-machine operators, class B	34	.696	17	.690	17	.701
Grinding-machine operators, class C	11	.577			11	.577
Helpers, journeymen's and others	66	.662	22	.691	44	.650
Helpers, machine operators'	80	.659	46	.645	34	.678
Inspectors, class A	24	.978	11	.954	13	1.000
Inspectors, class B	19	.794	8	.741	11	.838
Inspectors, class C	23	.534	19	.505	4	.654
Janitors	73	.550	26	.514	47	.570
Job setters	28	.965	22	.934	6	1.089
Laborers	167	.590	79	.592	88	.588
Laborers, foundry	33	.723			33	.723
Lathe operators, engine, class A	137	.955	67	.930	70	.978
Lathe operators, engine, class B	129	.768	56	.733	73	.796
Lathe operators, engine, class C	32	.701	31	.709	1	(2)
Lathe operators, turret, class A	58	1.002	28	.998	30	1.007
Lathe operators, turret, class B	63	.756	36	.704	27	.827
Lathe operators, turret, class C	8	.658	8	.658		
Lay-out men, class A	20	.944	4	1.050	16	.917
Lay-out men, class B	4	(2)	1	(2)	3	(2)
Learners, journeymen and others	64	.527	44	.498	20	.591
Learners, machine operators	156	.554	94	.528	62	.594
Machinists, class A	76	.991	35	.925	41	1.048
Machinists, class B	69	.837	41	.823	28	.859
Metal-saw operators	20	.662	9	.654	11	.669
Milling-machine operators, class A	47	.992	26	1.001	21	.982
Milling-machine operators, class B	70	.741	49	.739	21	.745
Millwrights	27	.786	12	.815	15	.762
Molders, bench	21	1.002			21	1.002
Molders, floor	44	1.120			44	1.120
Molders' helpers	10	.679			10	.679
Molders, machine, class A	9	(2)			9	(2)
Packers	23	.610	20	.602	3	.663
Painters, brush	42	.696	16	.660	26	.718
Painters, spray	45	.770	31	.716	14	.892
Patternmakers, wood	28	.999	16	.924	12	1.097
Pipefitters	6	(2)	3	(2)	3	(2)
Planer operators	37	.951	16	.946	21	.955
Platers	10	.968	7	.943	3	1.029
Power-shear operators	9	.781	1	(2)	8	.816
Punch-press operators, class A	12	.662	3	.533	9	.906
Punch-press operators, class B	16	.746	10	.655	6	.890
Punch-press operators, class C	12	.654	6	.583	6	.724
Repairmen, machine	3	(2)	1	(2)	2	(2)
Riveters, pneumatic	5	(2)			5	(2)
Sand blasters	7	.648	1	(2)	6	.626
Sand mixers, machine	5	.745			5	.745
Screw-machine operators, class A	10	.998	2	(2)	8	.948
Screw-machine operators, class B	9	.783	1	(2)	8	.792
Screw-machine operators, class C	6	.613			6	.613
Shake-out men	13	.704			13	.704
Shaper operators	21	.872	8	.841	13	.892
Sheet-metal workers, class A	70	1.049	22	.995	48	1.073
Sheet-metal workers, class B	54	.751	26	.746	28	.755
Stock clerks	161	.671	62	.665	99	.674

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings* [1] *of Day-Shift Workers in Selected Occupations in Food-Products-Machinery Plants, by Regions, May–July 1942*—Continued

Occupation and class	Northeastern and North Central States		Northeastern States		North Central States	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Male workers—Continued.						
Time clerks	21	$0.634	12	$0.535	9	$0.754
Tool and die makers	78	1.097	43	1.095	35	1.010
Tool-grinder operators	12	.817	4	.873	8	.788
Truck drivers	16	.716	7	.631	9	.786
Truckers, hand	23	.507	7	.475	16	.521
Watchmen	65	.588	26	.573	39	.598
Welders, hand, class A	70	.954	34	.942	36	.965
Welders, hand, class B	102	.759	32	.759	70	.759
Welders, machine	10	.962	----	----	10	.962
Woodworkers	11	.727	----	----	11	.727
Female workers	70	.438	26	.510	44	.396
Assemblers, bench, class C	18	.407	7	.464	11	(2)
Drill-press operators, class C	12	.549	11	(2)	1	(2)
Inspectors, class C	21	.446	8	.494	13	.416
Winders	19	(2)	----	----	19	(2)

[1] Averages are based on actual earnings exclusive of extra payments for overtime.
[2] Number of plants and/or workers too small to justify the computation of an average.

Twelve male occupational groups showed averages of $1 or more per hour; these groups, comprising slightly more than 600 workers, include about a seventh (13.8 percent) of the total employees and over two-fifths (41.4 percent) of the skilled workers for whom detailed occupational data were compiled. By far the largest group earning an average of $1 or more were the class A floor assemblers. Twelve occupational groups (excluding learners and apprentices), which include a sixth (16.7 percent) of the total workers, averaged less than 60 cents an hour. Of these, four groups of male workers were receiving under 55 cents, one of these groups—class C burrers—averaged less than 50 cents per hour.

As already stated in connection with general plant averages, any comparison of wage rates on a regional basis is not entirely conclusive because of variations in other characteristics of the industry. The several factors, the precise influence of which cannot be stated on the basis of the data available, may be of greater importance than the small difference in average hourly earnings between the North Central and Northeastern States.

Despite the fact that there was no uniformity among the individual occupations, average hourly earnings for the male workers as a group were nearly 10 percent (6.4 cents) higher in the North Central region than in the Northeast. Only 6.5 percent of the workers in the northeastern plants were found in the 6 occupational groups which showed averages of $1 or more per hour. On the other hand, nearly a fifth (19.6 percent) of the employees in North Central plants were included in the 17 occupations for which the averages amounted to $1 or more per hour. Averages for blacksmiths, time clerks, and class A punch-press operators were over 40 percent higher in the North Central States than in the Northeast. Of 70 occupational groups which contained sufficient numbers of workers to merit special study, the

averages were higher in the North Central States for 50; for 19 of the groups the hourly earnings were over 10 cents per hour greater in that region. On the other hand, for 18 occupational groups, average earnings were higher in the Northeast; in only 3 cases, however, were the differences greater than 10 cents per hour.

Because of the extremely varied character of the industry, to which reference has already been made, there appears to be little variation in average wages between small and large cities. The influence of unionization on level of wages is also obscured by other factors. In the 10 widely scattered plants where incentive methods were in operation, average earnings were about 14 cents higher than in the remainder of the establishments where workers were paid on a straight hourly basis.

Occupational rates tended to vary with average number of workers employed per plant despite the fact that, as already noted, the relationship was by no means uniform. In order to compare occupational rates in large and small plants, it is obviously desirable to eliminate any regional wage differentials as far as possible. The data shown in table 4 are, therefore, limited to the 31 plants studied in the North Central States.

TABLE 4.—*Average Hourly Earnings*[1] *of Day-Shift Male Workers in 31 North Central Food-Products-Machinery Plants, by Occupation and Size of Plant, May–July 1942*

Occupation and class	Plants employing—			
	250 workers or less		Over 250 workers	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Assemblers, bench, class A	25	$0.938	25	$0.911
Assemblers, bench, class B	30	.824	25	.774
Assemblers, bench, class C	42	.631	14	.651
Assemblers, floor, class A	46	.834	65	1.186
Assemblers, floor, class B	53	.710	53	.912
Assemblers, floor, class C	59	.564	36	.630
Buffers	17	.991	45	.678
Drill-press operators, class A	20	.825	11	.978
Drill-press operators, class B	24	.655	15	.805
Helpers, machine operators'	20	.600	14	.794
Janitors	27	.550	20	.598
Laborers	37	.517	51	.640
Lathe operators, engine, class A	44	.941	26	1.041
Lathe operators, engine, class B	56	.757	17	.867
Lathe operators, turret, class A	19	.989	11	1.037
Lathe operators, turret, class B	17	.825	10	.830
Learners, machine operators	37	.526	25	.695
Milling-machine operators, class A	12	.972	10	.995
Sheet-metal workers, class A	28	1.053	20	1.102
Stock clerks	68	.643	34	.677
Tool and die makers	20	1.019	15	1.212
Welders, hand, class A	27	.911	9	1.135
Welders, hand, class B	25	.823	45	.723

[1] Averages are based on actual earnings exclusive of extra payments for overtime.

The numbers of workers in many of the occupational groups are insufficient to permit any reliable comparison of rates within this region. There are, however, 23 groups which are believed to be adequate for this purpose. In 19 of these occupations, the average earnings of workers in the small plants are lower than the rates in the larger establishments. In 8 of the occupational groups for which comparisons are possible, the difference amounts to 15 cents or more per hour; there is a difference of 35 cents in the case of class A floor

assemblers. In the 4 cases in which higher rates are paid in the smaller plants, the differences in 2—class A and B bench assemblers—amount to only a few cents. In the other 2 cases—buffers and class B hand welders—the rates are, respectively, 31 cents and 10 cents lower in the larger plants.

Only three occupational groups contained enough woman workers to warrant the computation of an average. Of these, the highest rate was for class C drill-press operators with a rate of 54.9 cents an hour (table 3). Class C inspectors were paid 44.6 cents per hour, and class C bench assemblers 40.7 cents. In the Northeastern States woman workers as a group received a considerably higher average wage than in the North Central States.

UNION WAGES AND HOURS IN THE BUILDING TRADES, JULY 1, 1942 [1]

Summary

UNION wage rates for journeymen in the building trades in 75 cities averaged $1.556 per hour on July 1, 1942. The average for helpers and laborers was $0.839; for the combined trades it was $1.362.

Since June 1, 1941, union wage rates in the building trades have shown an average increase of 6.3 percent. Journeyman rates were advanced an average of 5.6 percent; helper and laborer rates 10.0 percent. Slightly more than three-fifths of the union journeymen and over three-fourths of the less skilled group received wage increases during the 13-month period.

Straight-time weekly hours permitted by union agreements increased, on the average, by 0.8 percent. A number of journeymen trades in various cities previously having a 30- or 35-hour week increased their straight-time workweeks during the war emergency to 40 hours. A few of the helper and laborer agreements showed reductions to 40, both movements increasing the prevalence of the 40-hour week in the industry.

On Federal war construction projects the stabilization agreement made between the Federal agencies and the Building Trades Department of the American Federation of Labor (effective July 22, 1941) provides for a uniform workweek of 40 hours and the payment of time and a half for all overtime and Sunday work. For other work, the union agreements covering 65.5 percent of the journeymen and 29.0 percent of the helpers and laborers provided for double rates for overtime. Almost 81 percent of all the union construction workers in the 75 cities studied were covered by double-time rates for Sunday work.

Scope and Method of Study

Union scales of wages and hours in the building trades have been collected by the Bureau of Labor Statistics each year since 1907. The early studies were made in 39 cities and included 14 journeyman trades and 4 helper and laborer trades. The study has been gradually extended to cover 75 cities, and now includes 27 journeyman trades and 10 helper and laborer trades. These cities are in 40 States and the District of Columbia.[2]

Rates for the earlier years were collected as of May 15. Since many of the annual wage negotiations during more recent years have not been concluded by the middle of May, rates were collected as of June 1 from 1938 to 1941, inclusive. This year, because of the Building Construction Stabilization Agreement sponsored by the Govern-

[1] Prepared in the Bureau's Industrial Relations Division by Kermit B. Mohn, assisted by Annette V. Simi
[2] Footnote on p. 1252.

ment, which tends to stabilize all building rates as of July 1, 1942, for the duration of the war,[3] rates were collected as of July 1.

The collection of the data was made by field representatives of the Bureau, who visited some responsible official of each local union involved in the cities covered. The 1942 survey included 2,957 quotations of scales covering 698,024 union members, 73 percent of whom were journeymen, and 27 percent helpers and laborers. In 1941 helpers and laborers comprised 22.5 percent of the total membership; in 1940 almost 21 percent, and 1939 about 18 percent. As membership is used as the weighting factor, the comparatively large proportional increase of helpers and laborers between 1941 and 1942 undoubtedly had a depressing influence on the general average rates, especially in certain localities where the membership among the building-laborer group rose considerably, owing to the large amounts of Federal construction.

Union scale.—A union scale is a wage rate or schedule of hours agreed to by an employer (or group of employers) and a labor organization, for persons who are actually working or would be working if there were work to be had in that locality. A union scale usually fixes a limit in one direction; that is, it provides a minimum wage and maximum hours of work with specific provisions for overtime.

Apprentices and foremen.—A young person working in a trade for a definite number of years, for the purpose of learning the trade, and receiving instruction as an element of compensation, is considered an apprentice. Scales for apprentices have not been included, but scales for helpers in a number of trades were collected. In some trades the work of helpers is performed, at least in part, by apprentices. Whenever it was found that helpers' work was done largely by apprentices, the scales for such helpers were omitted.

No rates were collected for strictly supervising foremen nor for individuals who were paid unusual rates because of some personal qualification as distinct from the usual trade qualifications.

[2] The following are the cities covered. The numerals indicate the population group in which the city is included in tables 8 and 9.

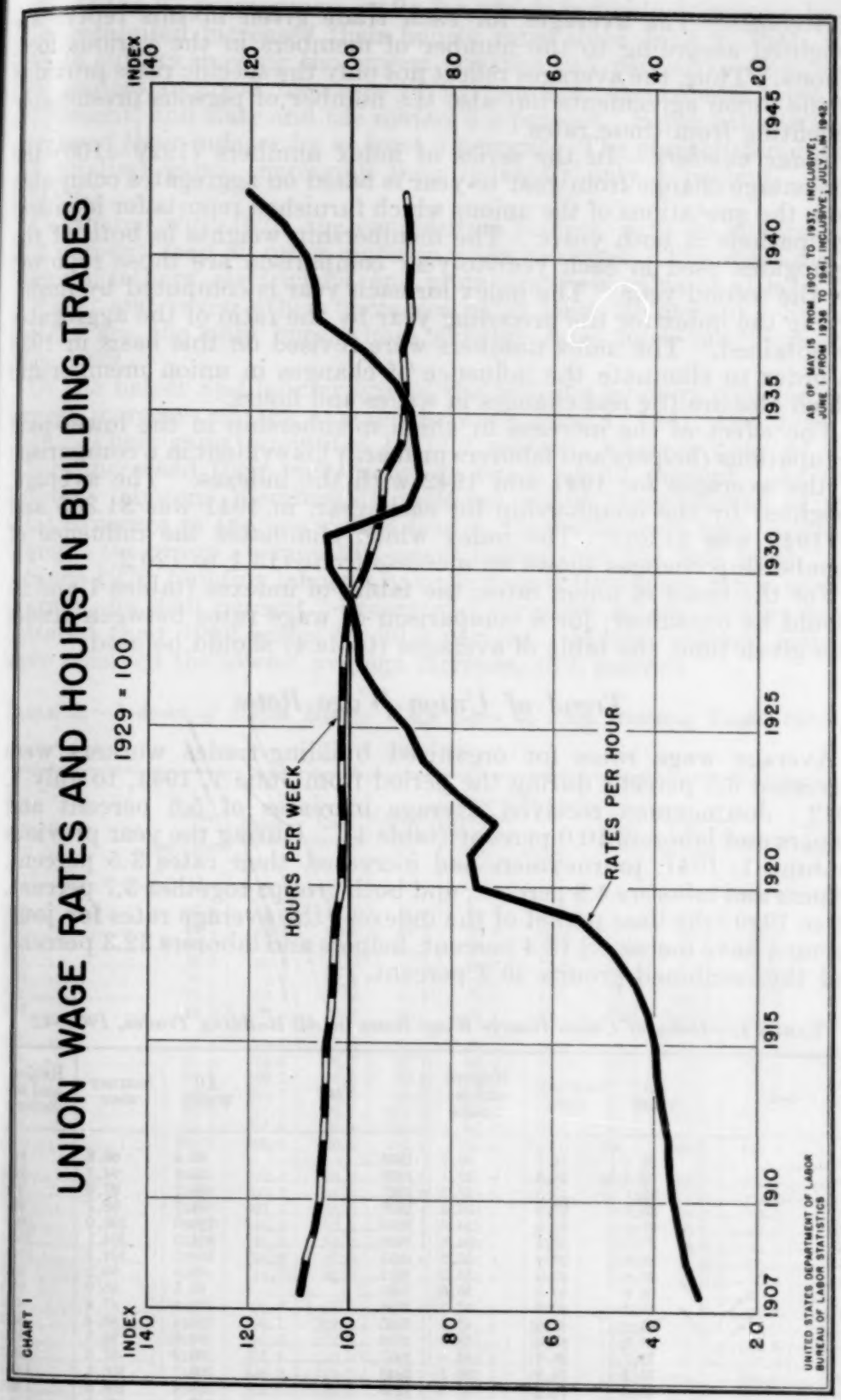
North and Pacific

Baltimore, Md. II.
Binghamton, N. Y. V.
Boston, Mass. II.
Buffalo, N. Y. II.
Butte, Mont. V.
Charleston, W. Va. V.
Chicago, Ill. I.
Cincinnati, Ohio. III.
Cleveland, Ohio. II.
Columbus, Ohio. III.
Davenport, Iowa, included in Rock Island (Ill.) district.
Dayton, Ohio. IV.
Denver, Colo. III.
Des Moines, Iowa. IV.
Detroit, Mich. I.
Duluth, Minn. IV.
Erie, Pa. IV.
Grand Rapids, Mich. IV.
Indianapolis, Ind. III.
Kansas City, Mo. III.
Los Angeles, Calif. I.
Madison, Wis. V.
Manchester, N. H. V.
Milwaukee, Wis. II.
Minneapolis, Minn. III.
Moline, Ill., included in Rock Island (Ill.) district.
Newark, N. J. III.
New Haven, Conn. IV.
New York, N. Y. I.
Omaha, Nebr. IV.
Peoria, Ill. IV.
Philadelphia, Pa. I.
Pittsburgh, Pa. II.
Portland, Maine. V.
Portland, Oreg. III.
Providence, R. I. III.
Reading, Pa. IV.
Rochester, N. Y. III.
Rock Island (Ill.) district. IV.
St. Louis, Mo. II.
St. Paul, Minn. III.
Salt Lake City, Utah. IV.
San Francisco, Calif. II.
Scranton, Pa. IV.
Seattle, Wash. III.
South Bend, Ind. IV.
Spokane, Wash. IV.
Springfield, Mass. IV.
Toledo, Ohio. III.
Washington, D. C. II.
Wichita, Kans. IV.
Worcester, Mass. IV.
York, Pa. V.
Youngstown, Ohio. IV.

South and Southwest

Atlanta, Ga. III.
Birmingham, Ala. III.
Charleston, S. C. V.
Charlotte, N. C. IV.
Dallas, Tex. III.
El Paso, Tex. V.
Houston, Tex. III.
Jackson, Miss. V.
Jacksonville, Fla. IV.
Little Rock, Ark. V.
Louisville, Ky. III.
Memphis, Tenn. III.
Mobile, Ala. V.
Nashville, Tenn. IV.
New Orleans, La. III.
Norfolk, Va. IV.
Oklahoma City, Okla. IV.
Phoenix, Ariz. V.
Richmond, Va. IV.
San Antonio, Tex. III.
Tampa, Fla. IV.

[3] Memorandum of agreement between the Building Trades Department of the A. F. of L. and various Government agencies in charge of war construction, released May 22, 1942.


UNION WAGE RATES AND HOURS IN BUILDING TRADES
1929 = 100
CHART I
INDEX
140
120
100
80
60
40
20
1907
1910
1915
1920
1925
1930
1935
1940
1945
HOURS PER WEEK
RATES PER HOUR
AS OF MAY 15 FROM 1907 TO 1937, INCLUSIVE; JUNE 1, FROM 1938 TO 1941, INCLUSIVE; JULY 1, IN 1942.
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Averages.—The averages for each trade given in this report are weighted according to the number of members in the various local unions. Thus, the averages reflect not only the specific rates provided in the union agreements but also the number of persons presumably benefiting from these rates.

Index numbers.—In the series of index numbers (1929=100) the percentage change from year to year is based on aggregates computed from the quotations of the unions which furnished reports for identical occupations in both years. The membership weights in both of the aggregates used in each year-to-year comparison are those reported for the second year. The index for each year is computed by multiplying the index for the preceding year by the ratio of the aggregates so obtained. The index numbers were revised on this basis in 1936 in order to eliminate the influence of changes in union membership which obscure the real changes in wages and hours.

The effect of the increase in union membership in the lower-paid occupations (helpers and laborers primarily) is evident in a comparison of the averages for 1941 and 1942 with the indexes. The average, weighted by the membership for each year, in 1941 was $1.365 and in 1942 was $1.362. The index which eliminates the influence of membership changes shows an increase from 113.1 to 120.2.

For the trend of union rates, the tables of indexes (tables 1 and 2) should be consulted; for a comparison of wage rates between trades at a given time, the table of averages (table 4) should be used.

Trend of Union Wage Rates

Average wage rates for organized building-trades workers were increased 6.3 percent during the period from June 1, 1941, to July 1, 1942. Journeymen received average increases of 5.6 percent and helpers and laborers 10.0 percent (table 1). During the year previous to June 1, 1941, journeymen had increased their rates 3.5 percent, helpers and laborers 4.8 percent, and both groups together 3.7 percent. Since 1929 (the base period of the indexes) the average rates for journeymen have increased 18.4 percent, helpers and laborers 32.3 percent, and the combined groups 20.2 percent.

TABLE 1.—*Index of Union Hourly Wage Rates in All Building Trades, 1907–42*

Year	All trades	Journeymen	Helpers and laborers	Year	All trades	Journeymen	Helpers and laborers
1907	31.5	31.7	30.7	1925	89.0	88.8	87.7
1908	33.5	33.8	32.1	1926	94.8	94.7	95.6
1909	35.1	35.5	33.2	1927	98.1	97.9	97.3
1910	36.5	37.0	34.3	1928	98.7	98.7	98.3
1911	37.1	37.6	34.5	1929	100.0	100.0	100.0
1912	37.9	38.5	34.8	1930	104.2	104.1	105.1
1913	38.8	39.4	35.8	1931	104.5	104.5	104.5
1914	39.6	40.3	36.2	1932	89.3	89.3	89.2
1915	39.9	40.6	36.5	1933	86.8	86.9	85.2
1916	41.2	42.0	37.7	1934	87.4	87.4	87.7
1917	43.8	44.3	41.4	1935	88.4	88.4	88.2
1918	48.6	49.0	48.0	1936	91.6	91.3	93.4
1919	55.7	56.0	55.5	1937	98.0	97.6	101.5
1920	75.2	74.9	80.5	1938	106.7	106.1	111.7
1921	76.6	76.3	81.3	1939	107.4	106.8	112.6
1922	71.8	71.9	74.0	1940	109.1	108.3	114.8
1923	79.4	79.2	78.5	1941	113.1	112.1	120.3
1924	85.7	85.6	84.9	1942	120.2	118.4	132.3

All of the 23 journeyman crafts for which individual indexes have been computed increased their hourly rates since June 1, 1941, the granite cutters showing the largest advance (9.7 percent). Composition roofers received increases of 9.0 percent, sheet-metal workers 8.9 percent, and slate and tile roofers 8.8 percent. Seven other trades advanced their indexes by at least 5 percent. The stonecutters made the smallest gains, increasing their index by only 1 percent. (See table 2.)

Compared with 1929, the composition roofers, with an advance of 33.7 percent, lead all other crafts in wage increases. The sheet-metal workers, lathers, electricians, and plumbers show gains of at least 25 percent, and seven others increases of at least 20 percent. Stonecutters are the only ones whose average rates have not increased since 1929.

Of the helper and laborer group, the building laborers received the largest increases on the average between June 1, 1941, and July 1, 1942. Their gains amounted to 11.3 percent, whereas none of the others increased their indexes by as much as 10 percent. As the building laborers' membership included about three-fourths of the total coverage in the less skilled trades, their relatively high increase brought the group average 10 percent higher than the 1941 level.

Since 1929, building laborers have increased their wage rates, on the average, by 35.9 percent. Steam and sprinkler fitters' helpers have bettered their 1929 scales by 30.0 percent. Marble setters' helpers have received the lowest average increase, 13.6 percent.

TABLE 2.—*Indexes of Union Hourly Wage Rates in Each Building Trade, 1916–42*

[1929=100]

Year	Asbestos workers	Bricklayers	Carpenters	Cement finishers	Electricians (inside wiremen)	Elevator constructors	Glaziers	Granite cutters	Lathers	Marble setters
1916	40.0	43.3	41.8	43.7	40.7	43.1	.....	42.2	42.7	43.8
1917	42.1	44.8	45.5	46.2	43.3	46.2	.....	43.8	44.4	43.8
1918	47.1	48.1	50.5	51.0	48.2	49.2	45.9	52.2	47.9	46.1
1919	57.3	53.4	58.2	57.2	55.2	57.3	49.1	61.7	53.3	51.2
1920	74.5	72.8	77.8	77.7	72.8	73.6	71.0	76.0	76.0	67.7
1921	75.5	72.3	78.4	80.3	75.4	77.4	72.2	83.7	77.2	68.8
1922	70.3	70.4	72.7	74.5	71.1	72.4	72.4	83.5	72.5	67.4
1923	72.9	79.7	81.0	81.5	73.8	76.9	76.7	85.1	80.1	76.2
1924	81.4	84.3	86.7	90.1	82.4	86.3	80.9	85.8	86.4	79.7
1925	84.6	89.2	88.5	90.6	86.7	90.5	90.0	86.8	94.2	81.4
1926	90.5	94.7	95.0	96.7	91.3	95.3	91.2	97.7	96.6	91.0
1927	95.0	97.0	98.1	101.0	95.1	98.8	97.4	97.1	100.5	92.9
1928	95.6	97.8	98.4	100.0	96.0	99.8	98.5	98.2	100.8	93.4
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	105.8	102.4	104.0	106.6	101.8	104.7	104.6	105.1	104.3	100.3
1931	106.8	102.2	104.2	107.0	103.2	105.2	105.3	105.2	103.7	100.8
1932	89.0	87.5	85.4	93.4	98.5	97.9	88.2	94.2	93.1	92.3
1933	88.7	85.2	85.2	91.2	89.9	91.0	88.0	90.7	89.7	89.2
1934	88.6	84.5	86.7	92.1	90.1	91.2	93.2	90.6	92.1	88.8
1935	89.8	84.2	87.8	92.6	94.4	91.3	94.1	90.5	93.1	89.4
1936	93.4	84.7	92.3	95.0	96.9	92.4	95.5	90.5	95.5	89.9
1937	100.6	90.6	98.3	101.9	101.1	96.0	104.6	91.0	101.8	95.1
1938	110.3	100.1	107.1	111.3	111.4	107.7	112.2	96.3	112.7	103.2
1939	110.8	100.6	107.3	111.7	112.0	109.5	113.0	97.7	116.4	103.5
1940	112.0	102.8	110.0	112.7	113.9	111.2	114.3	97.7	117.2	105.2
1941	116.1	105.2	112.5	116.7	119.1	113.7	117.9	101.1	121.6	105.5
1942	124.7	109.0	120.3	123.8	127.1	120.1	122.9	110.9	127.0	107.4

TABLE 2.—*Indexes of Union Hourly Wage Rates in Each Building Trade, 1916–42*—Con.

Year	Mosaic and terrazzo workers	Painters	Plasterers	Plumbers and gas fitters	Roofers—composition	Roofers—slate and tile	Sheet-metal workers	Sign painters	Steam and sprinkler fitters	Stonecutters
1916	37.7	42.3	43.9	44.3	37.4	39.5	42.0	40.9	41.7	41.8
1917	39.7	43.6	45.2	45.8	39.5	42.1	43.8	42.7	43.3	43.8
1918	42.9	48.1	47.6	50.6	44.8	46.1	51.3	46.7	47.3	46.7
1919	46.1	56.3	54.9	57.2	49.8	52.5	56.6	56.1	53.2	55.5
1920	68.2	76.7	71.7	74.0	70.8	67.9	75.9	75.7	70.2	72.7
1921	69.4	78.9	75.6	77.4	74.2	73.9	78.7	78.5	71.1	74.7
1922	67.4	73.8	72.7	71.9	71.0	70.7	73.0	77.8	69.5	71.7
1923	69.0	81.0	81.0	79.4	71.9	78.8	78.6	84.0	72.9	78.2
1924	81.5	85.3	90.6	86.6	83.3	87.3	86.3	95.7	83.6	84.0
1925	85.7	90.0	92.1	88.4	85.8	91.3	89.2	96.7	88.0	87.5
1926	87.5	95.4	98.9	95.2	93.3	94.3	95.3	96.2	95.3	95.4
1927	91.1	98.6	101.0	97.2	95.9	98.8	98.2	98.9	98.0	95.1
1928	95.3	100.2	101.2	99.2	98.1	99.0	96.3	99.0	99.4	95.5
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	104.7	105.6	105.0	103.9	106.0	103.1	104.6	99.9	104.9	100.7
1931	105.6	106.1	104.7	105.1	106.7	103.5	106.2	99.8	105.5	101.0
1932	97.2	89.6	87.1	91.4	93.2	89.9	92.1	90.1	90.9	93.7
1933	89.5	87.8	83.7	90.6	91.2	87.7	89.4	83.2	88.2	84.7
1934	90.8	86.4	84.6	91.4	93.0	87.2	89.7	82.9	89.2	85.1
1935	90.8	86.7	85.6	92.8	95.6	89.5	90.4	85.6	90.7	85.1
1936	91.1	91.1	86.1	95.2	96.2	90.2	92.2	87.6	93.7	86.3
1937	95.4	97.7	94.9	100.4	103.7	96.9	98.9	96.8	98.8	88.3
1938	106.0	104.2	106.1	112.5	114.8	103.4	108.8	97.7	111.4	96.1
1939	107.5	105.0	107.0	113.5	115.2	104.4	110.4	97.9	112.2	96.5
1940	108.0	105.2	107.5	115.3	117.9	106.2	112.4	98.1	112.5	96.8
1941	109.0	112.2	109.4	120.3	122.7	108.6	117.6	99.8	116.0	98.5
1942	112.4	116.0	112.4	125.4	133.7	118.1	128.1	104.5	122.6	99.4

Year	Stonemasons	Structural-iron workers	Tile layers	Bricklayers' tenders	Building laborers	Elevator constructors' helpers	Marble setters' helpers	Plasterers' laborers	Steam and sprinkler fitters' helpers	Tile layers' helpers
1916	39.7	44.0	45.9	36.5	41.2	38.8	38.1	39.4	33.0	39.8
1917	41.2	46.6	48.2	40.7	45.5	40.9	40.6	42.1	35.1	40.8
1918	45.2	53.4	49.6	47.5	53.4	43.6	42.5	48.5	40.5	42.1
1919	50.7	60.1	54.1	55.6	60.5	52.9	48.6	55.3	48.6	51.0
1920	70.7	76.2	72.8	80.8	87.7	74.1	82.0	80.1	70.4	83.5
1921	72.4	77.6	72.2	81.2	88.2	77.5	81.9	82.7	72.2	84.4
1922	67.4	70.5	71.0	67.3	82.8	73.8	76.2	72.6	74.1	79.3
1923	79.7	75.1	77.6	73.5	84.4	77.3	82.3	80.0	78.7	81.1
1924	84.5	85.0	88.1	76.8	93.9	85.2	89.2	86.0	87.2	88.3
1925	86.1	85.9	90.2	85.8	89.7	89.2	84.6	91.7	89.7	90.8
1926	94.9	92.4	94.6	93.5	98.7	96.1	93.9	97.1	95.0	98.4
1927	96.1	99.0	99.0	95.7	99.1	99.0	93.3	98.0	99.3	99.5
1928	97.3	99.2	98.9	95.8	99.5	100.9	94.3	99.6	101.4	101.5
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	101.5	105.5	104.5	103.8	105.5	105.4	101.7	106.0	109.3	108.5
1931	102.0	106.5	105.6	103.5	103.9	105.7	101.8	105.6	109.3	105.5
1932	90.5	92.3	91.1	85.8	89.4	96.9	93.2	87.6	94.3	95.8
1933	84.5	91.3	88.3	84.7	84.2	88.9	90.7	82.5	91.6	91.4
1934	84.4	92.5	88.3	90.3	87.3	88.4	90.9	84.8	91.9	91.5
1935	84.2	93.2	89.0	87.4	88.6	88.6	91.5	86.2	93.0	94.6
1936	85.2	95.6	90.7	92.1	96.2	89.5	91.6	88.0	93.2	96.0
1937	94.1	104.4	97.1	99.1	105.3	91.8	97.0	95.8	100.0	101.2
1938	102.1	112.7	106.4	109.1	112.9	104.5	105.4	108.1	121.8	111.6
1939	102.4	114.0	106.5	109.4	113.6	107.9	105.9	109.0	122.5	111.9
1940	101.9	114.4	106.7	113.6	115.4	108.9	108.2	109.2	123.2	112.1
1941	104.5	119.9	108.2	117.4	122.2	111.0	109.8	111.7	125.2	114.7
1942	110.6	123.9	113.5	126.6	135.9	117.6	113.6	120.0	130.0	122.5

Rate Changes in Other Specified Trades

Since data for boilermakers, machinists, paperhangers, and rodmen were not collected in 1929, it is impossible to present index numbers for these crafts or to include them in the trend discussion above. The changes over the previous years, as shown in comparable quotations for each year in which data have been collected for these trades, are shown in table 3.

TABLE 3.—*Percent of Change in Union Hourly Wage Rates and Weekly Hours in Specified Building Trades, 1936–42*

Item	Percent of change from preceding year, in—					
	1937	1938	1939	1940	1941	1942
Boilermakers:						
Hourly wage rates	+2.4	+10.4	+0.6	+1.5	+1.9	+6.3
Weekly hours	−.1	−5.0	0	0	+.5	+.1
Machinists:						
Hourly wage rates	+14.7	+6.5	+.2	+.4	+2.8	+5.2
Weekly hours	−.4	−.5	−.1	0	−.2	0
Paperhangers:						
Hourly wage rates	----------	+1.7	+.5	+.8	+6.7	+4.5
Weekly hours	----------	−.6	+.2	+.3	+.5	+7.1
Rodmen:						
Hourly wage rates	----------	+9.8	+1.0	+1.2	+5.1	+4.3
Weekly hours	----------	0	−.1	0	+1.0	+(1)

[1] Less than a tenth of 1 percent.

Average Hourly Rates, July 1, 1942

Wage rates for union journeymen in 75 cities averaged $1.556 per hour on July 1, 1942 (table 4). The average for organized helpers and laborers was $0.839, and for the combined crafts it amounted to $1.362.

Over two-thirds of the journeymen had wage rates of $1.50 or more, with 6.7 percent having rates of at least $2.00 per hour. More than half of the journeymen were covered by rates between $1.50 and $1.80, the most frequent rates, irrespective of membership, being $1.50, $1.625, and $1.75 per hour. Only one-tenth of 1 percent of the journeymen had rates of less than $1.00 per hour, most of these being granite cutters, stonecutters, or glaziers on inside work, asbestos workers on residential work, or composition roofers. The lowest rates, 55 cents per hour, covered some of the glaziers, painters, and paperhangers in Charleston, S. C. Spray painters in Birmingham had the highest scale, $2.375 per hour. Other scales of over $2.00 covered some of the lathers ($2.167), slate and tile roofers ($2.250), and sign painters ($2.310), in New York City as well as the marble carvers ($2.071), in New York and Newark.

Union bricklayers, on the average, are the highest-paid workers in the building-construction industry, the journeymen averaging $1.774 per hour on July 1, 1942. Over 30 percent were covered by rates of at least $2.00 per hour; less than 3 percent received less than $1.50. Plasterers were a close second in wage rates; their combined average was $1.758, with 35.9 percent of the membership having rates of $2.00. Lathers averaged $1.713, and 12.9 percent, all in New York City, had rates of $2.10 or more. Eight other trades, boilermakers, electricians, elevator constructors, marble setters, plumbers, sign

painters, steam and sprinkler fitters, and structural-iron workers, had average rates of at least $1.60; 9 more trades averaged at least $1.50, and another 6 at least $1.40. The composition roofers were lowest with an average of $1.336 per hour. Machinists in the building trades had the smallest range of rates, none being lower than $1.20 nor so high as $1.80.

TABLE 4.—*Distribution of Union Members in the Building Trades by Hourly Wage Rates, July 1, 1942*

Trade	Average rate per hour	Percentage of union journeymen whose rates (in cents) per hour were—												
		Under 100	100 and under 110	110 and under 120	120 and under 130	130 and under 140	140 and under 150	150 and under 160	160 and under 170	170 and under 180	180 and under 190	190 and under 200	200 and under 210	210 and over
Journeymen	$1.556	0.1	1.4	2.9	8.3	12.2	7.8	22.7	12.9	17.8	6.7	0.5	6.5	0.2
Asbestos workers	1.569	3.9	2.3	1.4	1.3	.7	3.2	39.0	24.1	16.0	-----	-----	8.1	-----
Boilermakers	1.650	-----	.1	-----	.1	-----	-----	34.7	21.9	34.4	-----	-----	8.8	-----
Bricklayers	1.774	-----	(1)	(1)	2.4	.3	-----	8.5	24.1	28.4	.8	5.1	30.4	-----
Carpenters	1.484	(1)	2.2	4.6	10.4	19.1	13.6	22.7	4.5	10.3	11.6	-----	1.0	-----
Cement finishers	1.500	-----	1.0	-----	10.6	19.1	8.1	39.1	4.3	8.8	7.9	-----	1.1	-----
Electricians, inside wiremen	1.667	.1	.2	1.5	2.2	6.1	.2	23.4	14.7	27.3	9.2	-----	15.1	-----
Elevator constructors	1.623	-----	-----	.3	.7	7.0	11.5	24.7	24.5	17.2	6.2	2.9	5.0	-----
Glaziers	1.481	2.1	4.8	4.2	18.8	13.4	8.9	15.2	6.9	1.2	24.5	-----	-----	-----
Granite cutters	1.458	2.8	.1	2.3	28.3	.8	-----	54.5	8.6	.7	.2	-----	1.7	-----
Lathers	1.713	-----	-----	.4	2.3	1.2	2.3	29.2	14.3	16.9	19.0	1.5	-----	12.9
Machinists	1.520	-----	-----	-----	7.7	23.6	.5	33.7	8.0	26.5	-----	-----	-----	-----
Marble setters	1.640	-----	-----	.3	.8	9.8	3.3	17.1	16.1	51.1	-----	-----	1.5	-----
Mosaic and terrazzo workers	1.512	-----	-----	.2	13.7	14.9	5.7	31.1	11.1	23.3	-----	-----	-----	-----
Painters	1.494	(1)	1.0	4.0	12.9	13.7	8.9	18.5	19.3	21.2	.1	-----	.4	(1)
Paperhangers	1.487	.1	2.1	2.9	8.4	22.7	6.2	28.5	.9	28.1	-----	-----	-----	-----
Plasterers	1.758	-----	-----	-----	2.1	3.9	.3	14.5	21.8	14.9	6.6	-----	35.9	-----
Plumbers and gas fitters	1.674	-----	.6	1.5	.6	.7	.9	29.3	21.6	25.7	-----	-----	19.1	-----
Rodmen	1.528	-----	.1	.1	19.6	12.5	6.6	21.3	11.4	19.4	7.8	-----	1.2	-----
Roofers, composition	1.336	3.7	9.7	12.1	18.6	18.5	8.2	13.1	5.0	10.0	.7	.3	.1	-----
Roofers, slate and tile	1.492	-----	5.3	11.5	10.7	19.7	5.3	12.8	5.0	16.2	4.8	1.1	1.9	5.7
Sheet-metal workers	1.563	-----	.3	.2	7.4	9.7	7.7	37.4	13.7	12.7	1.5	-----	9.4	-----
Sign painters	1.600	(1)	2.2	3.6	7.0	7.7	2.5	17.7	19.6	23.6	13.0	-----	.5	2.6
Steam and sprinkler fitters	1.615	-----	.9	.4	3.0	1.3	-----	28.2	31.0	31.9	-----	-----	3.3	-----
Stonecutters	1.556	5.8	3.3	4.1	8.6	10.0	-----	5.8	22.7	25.4	-----	13.6	.7	-----
Stonemasons	1.592	-----	.3	-----	22.9	.9	1.1	18.3	25.4	15.3	.5	-----	15.3	-----
Structural-iron workers	1.695	-----	-----	-----	1.3	.3	1.6	20.0	25.6	29.8	7.1	2.8	11.5	-----
Tile layers	1.540	-----	-----	.4	8.5	14.2	4.1	33.9	8.0	30.9	-----	-----	-----	-----

Trade	Average rate per hour	Percent of union helpers and laborers whose rates (in cents) per hour were—											
		Under 50	50 and under 60	60 and under 70	70 and under 80	80 and under 90	90 and under 100	100 and under 110	110 and under 120	120 and under 130	130 and under 140	140 and under 150	150 and under 160
Helpers and laborers	$0.839	3.8	8.3	16.2	11.7	20.0	14.3	9.7	7.6	6.2	0.8	0.5	0.9
Bricklayers' tenders	.960	.4	2.7	10.1	8.1	14.2	18.2	13.1	9.2	23.1	.1	.8	-----
Building laborers	.788	5.0	10.4	17.7	13.1	22.6	14.5	8.4	5.4	2.9	(1)	-----	-----
Composition roofers' helpers	.738	-----	15.4	24.3	18.3	25.9	6.7	9.4	-----	-----	-----	-----	-----
Elevator constructors' helpers	1.183	-----	-----	-----	.2	.6	3.6	24.3	26.6	28.6	4.2	11.9	-----
Marble setters' helpers	1.116	-----	-----	.8	5.5	3.6	13.8	25.2	16.0	-----	35.1	-----	-----
Plasterers' laborers	1.025	1.0	2.0	16.1	7.6	4.9	9.1	9.2	18.9	17.9	3.1	5.7	4.5
Plumbers' laborers	.932	.8	2.0	20.3	10.6	8.4	15.0	13.3	21.7	-----	-----	-----	7.9
Steam and sprinkler fitters' helpers	1.082	-----	.9	8.2	4.9	29.1	3.1	8.8	15.7	-----	-----	-----	29.3
Terrazzo workers' helpers	1.085	-----	.4	2.6	3.0	6.1	8.5	29.6	19.4	1.3	29.1	-----	-----
Tile layers' helpers	1.072	-----	.3	2.6	3.8	12.4	12.0	23.1	17.3	-----	28.5	-----	-----

[1] Less than a tenth of 1 percent.

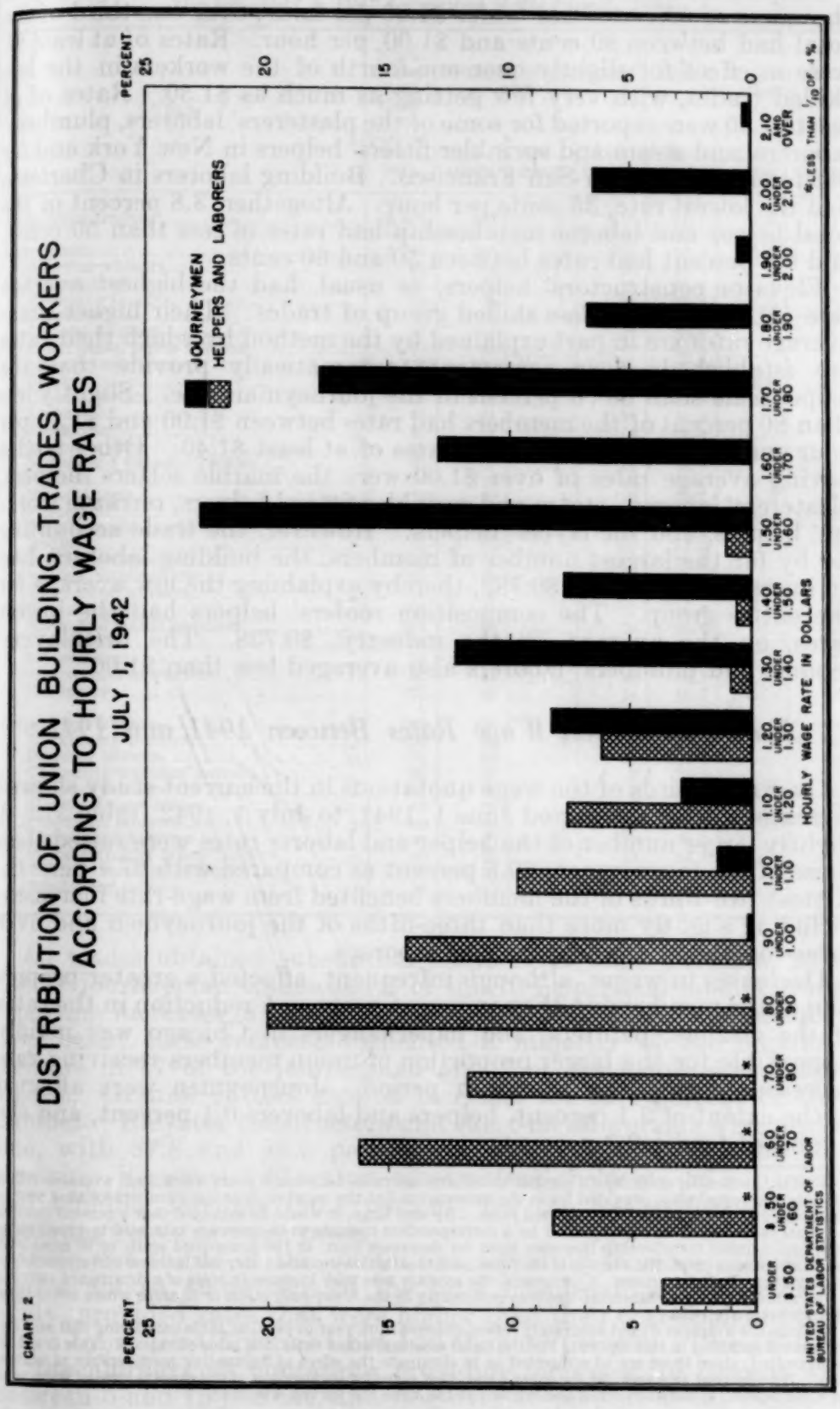


CHART 2
DISTRIBUTION OF UNION BUILDING TRADES WORKERS ACCORDING TO HOURLY WAGE RATES
JULY 1, 1942
JOURNEYMEN
HELPERS AND LABORERS
PERCENT
25
20
15
10
5
0
UNDER $.50
$.50 UNDER .60
.60 UNDER .70
.70 UNDER .80
.80 UNDER .90
.90 UNDER 1.00
1.00 UNDER 1.10
1.10 UNDER 1.20
1.20 UNDER 1.30
1.30 UNDER 1.40
1.40 UNDER 1.50
1.50 UNDER 1.60
1.60 UNDER 1.70
1.70 UNDER 1.80
1.80 UNDER 1.90
1.90 UNDER 2.00
2.00 UNDER 2.10
2.10 AND OVER
HOURLY WAGE RATE IN DOLLARS
*LESS THAN 1/10 OF 1%
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Helpers and laborers reported 62.2 percent of their membership in the range of 60 cents and under $1.00 per hour; over one-third of the total had between 80 cents and $1.00 per hour. Rates of at least $1 were in effect for slightly over one-fourth of the workers in the less skilled trades, with very few getting as much as $1.30. Rates of at least $1.50 were reported for some of the plasterers' laborers, plumbers' laborers, and steam and sprinkler fitters' helpers in New York and for plasterers' laborers in San Francisco. Building laborers in Charlotte had the lowest rate, 35 cents per hour. Altogether, 3.8 percent of the total helper and laborer membership had rates of less than 50 cents, and 8.3 percent had rates between 50 and 60 cents.

Elevator constructors' helpers, as usual, had the highest average rate ($1.183) for the less skilled group of trades. Their higher-than-average rates are in part explained by the method by which their rates are established; their agreements automatically provide that the helper scale shall be 70 percent of the journeyman rate. Slightly less than 80 percent of the members had rates between $1.00 and $1.30 per hour and almost 12 percent had rates of at least $1.40. Other trades having average rates of over $1.00 were the marble setters' helpers, plasterers' laborers, steam and sprinkler fitters' helpers, terrazzo workers' helpers, and tile layers' helpers. However, the trade accounting for by far the largest number of members, the building laborers, had an average rate of only $0.788, thereby explaining the low average for the entire group. The composition roofers' helpers had the lowest rates, on the average, in the industry, $0.738. The bricklayers' tenders and plumbers' laborers also averaged less than $1.00.

Changes in Union Wage Rates Between 1941 and 1942 [4]

Over two-thirds of the wage quotations in the current study showed increases during the period June 1, 1941, to July 1, 1942 (table 5). A slightly larger number of the helper and laborer rates were raised than those of the journeymen, 69.5 percent as compared with 67.4 percent. Almost two-thirds of the members benefited from wage-rate increases; including slightly more than three-fifths of the journeymen and over three-fourths of the helpers and laborers.

Decreases in wages, although infrequent, affected a greater proportion of the membership than in recent years. A reduction in the rates of the glaziers, painters, and paperhangers in Chicago was mainly responsible for the larger proportion of union members receiving rate decreases during the 13-month period. Journeymen were affected to the extent of 3.1 percent, helpers and laborers 0.1 percent, and the combined trades 2.3 percent.

[4] Certain anomalies enter into a comparison of average rates between 2 years when such averages reflect not only the actual rates provided for in the agreements but the number of union members for that year in each local union covered by the reported rates. By and large, it would be expected that a general increase in actual rates would be accompanied by a corresponding increase in the average rate paid to union members, but if union membership increases most (or decreases least) in the lower-paid crafts or in areas with less-than-average rates, the average of the rates paid to all union members may not increase correspondingly, or may even show a decrease. Conversely, the average rate may increase in spite of a downward swing in actual rates, if union membership declines sufficiently in the lower-paid crafts or in areas where lower-than-average rates are paid.

Because the averages do not accurately reflect changes from year to year, no table comparing 1941 and 1942 averages is included in this report. For the trend of actual union rates, the table of indexes (table 1) should be consulted, since these are so computed as to eliminate the effect of fluctuating membership at various rates. The current averages, on the other hand, best serve for comparison of the general level of wage rates between trades, or between cities and regions at the time the survey was made.

TABLE 5.—*Number of Changes in Union Wage-Rate Quotations and Percent of Members Affected, July 1, 1942 Compared With June 1, 1941*

Trade	Number of quotations comparable with 1941	Number of quotations showing—			Percent of union members affected		
		Increase	Decrease	No change	Increase	Decrease	No change
All building trades	2,873	1,950	8	915	64.7	2.3	33.0
Journeymen	2,204	1,485	5	714	60.3	3.1	36.6
Asbestos workers	68	52		16	73.3		26.7
Boilermakers	50	34		16	61.0		39.0
Bricklayers	90	65	1	24	52.6	.6	46.8
Carpenters	126	94		32	67.8		32.2
Cement finishers	87	53		34	60.4		39.6
Electricians, inside wiremen	97	80		17	64.3		35.7
Elevator constructors	133	122		11	87.8		12.2
Glaziers	76	57	1	18	63.6	10.8	25.6
Granite cutters	27	16		11	92.4		7.6
Lathers	85	41		44	51.0		49.0
Machinists	31	17		14	67.8		32.2
Marble setters	66	31		35	23.0		77.0
Mosaic and terrazzo workers	63	27		36	32.1		67.9
Painters	166	124	1	41	46.8	19.6	33.6
Paperhangers	79	59	1	19	56.7	25.2	18.1
Plasterers	87	46		41	38.0		62.0
Plumbers and gas fitters	87	56		31	47.1		52.9
Rodmen	71	39		32	47.3		52.7
Roofers, composition	106	91		15	79.9		20.1
Roofers, slate and tile	64	48		16	70.8		29.2
Sheet-metal workers	71	59		12	86.9		13.1
Sign painters	73	41	1	31	48.0	.4	51.6
Steam and sprinkler fitters	111	82		29	56.8		43.2
Stonecutters	59	11		48	11.4		88.6
Stonemasons	74	53		21	73.0		27.0
Structural-iron workers	80	44		36	46.7		53.3
Tile layers	77	43		34	48.7		51.3
Helpers and laborers	669	465	3	201	76.6	.1	23.3
Bricklayers' tenders	106	79	2	25	68.6	.5	30.9
Building laborers	92	69		23	80.1		19.9
Composition roofers' helpers	30	23		7	72.2		27.8
Elevator constructors' helpers	101	92		9	85.9		14.1
Marble setters' helpers	45	28		17	39.4		60.6
Plasterers' laborers	85	55	1	29	75.6	.4	24.0
Plumbers' laborers	41	24		17	59.9		40.1
Steam sprinkler fitters' helpers	49	30		19	35.4		64.6
Terrazzo workers' helpers	66	32		34	41.4		58.6
Tile layers' helpers	54	33		21	76.7		23.3

All trades obtained substantial numbers of wage increases, 23 of the 27 journeyman trades and 9 of the 10 helper and laborer trades reporting increases in a majority of their quotations. On a membership basis, these increases benefited a majority of the organized workers in 17 of the journeyman and 7 of the helper and laborer trades. Granite cutters showed increases for 92.4 percent of their number. Elevator constructors and sheet-metal workers were next in line, with 87.8 and 86.9 percent of their respective memberships receiving increases. Elevator constructors' helpers (85.9 percent) and building laborers (80.1 percent) led the less skilled group in obtaining raises in wage rates.

Over two-thirds of the quotations reporting increases, which included almost 40 percent of the total membership covered in the study, provided rates that were higher than their corresponding 1941 scales by at least 5 percent but less than 15 percent. (See table 6.) Of the journeyman quotations providing increases, 70 percent were between 5 and 15 percent, affecting over 40 percent of the members. The helper and laborer group included 61.5 percent of the quotations

in the 5–15 percent category, with 37.9 percent of the members benefiting. Only 9.1 percent of the journeymen received raises of 15 but less than 20 percent, in contrast to 20.3 percent of the helpers. Over 12 percent of the helpers and laborers advanced their scales by at least 25 percent; only 3.0 percent of the journeymen received similar raises.

TABLE 6.—*Number of Increases in Union Wage-Rate Quotations and Percent of Members Affected, by Percent of Increase, July 1, 1942, Compared With June 1, 1941*

Trade	Number of quotations showing increases of—							Percent of total members affected by increases of—						
	Less than 5 percent	5 and under 10 percent	10 and under 15 percent	15 and under 20 percent	20 and under 25 percent	25 and under 30 percent	30 percent and over	Less than 5 percent	5 and under 10 percent	10 and under 15 percent	15 and under 20 percent	20 and under 25 percent	25 and under 30 percent	30 percent and over
All building trades	118	698	627	200	178	87	42	3.4	22.0	17.9	12.1	3.8	3.8	1.7
Journeymen	84	586	453	127	141	65	29	3.5	24.0	16.6	9.1	4.1	2.8	.2
Asbestos workers	2	26	13	3	8	-----	-----	2.4	38.2	19.2	2.9	10.6	-----	-----
Boilermakers	-----	14	9	7	4	-----	-----	-----	34.4	10.6	13.7	2.3	-----	-----
Bricklayers	8	33	13	6	5	-----	-----	15.5	22.4	5.0	9.0	.7	-----	-----
Carpenters	3	26	42	8	7	5	3	2.0	22.3	20.7	17.6	2.6	2.6	(1)
Cement finishers	4	22	13	4	6	4	-----	2.8	28.3	14.5	3.8	7.1	3.9	-----
Electricians, inside wiremen	2	30	23	5	12	6	2	3.5	27.9	14.2	2.6	8.7	7.1	.3
Elevator constructors	26	55	27	9	3	2	-----	26.2	49.7	8.1	2.8	.5	.5	-----
Glaziers	6	13	26	6	1	5	-----	15.5	16.0	25.1	4.9	.4	1.7	-----
Granite cutters	-----	5	9	1	1	-----	-----	-----	11.0	69.7	11.0	.7	-----	-----
Lathers	2	18	8	5	4	1	3	2.4	27.5	12.0	4.6	3.8	.1	.6
Machinists	-----	8	5	1	2	-----	1	-----	54.1	8.8	.2	3.6	-----	1.1
Marble setters	1	17	7	2	3	-----	1	1.7	12.6	7.6	.6	.3	-----	.2
Mosaic and terrazzo workers	1	12	5	2	5	1	1	4.7	13.8	6.1	.8	3.7	2.7	.3
Painters	-----	29	54	8	15	12	6	-----	17.6	16.3	.8	5.1	6.7	.3
Paperhangers	-----	8	30	2	9	9	1	-----	24.7	16.7	.6	11.1	3.4	.2
Plasterers	4	27	4	4	5	1	1	3.7	30.0	.7	2.8	.7	(1)	.1
Plumbers and gas fitters	2	25	12	8	8	-----	1	4.2	20.3	14.3	5.2	3.0	-----	.1
Rodmen	1	15	18	3	2	-----	-----	2.9	20.7	16.5	1.8	5.4	-----	-----
Roofers, composition	-----	30	33	14	3	6	5	-----	33.9	27.4	8.9	4.6	1.3	3.8
Roofers, slate and tile	1	12	21	6	4	3	1	1.3	17.3	30.2	6.0	11.1	3.2	1.7
Sheet-metal workers	3	21	19	2	8	6	-----	10.4	38.2	17.3	.3	17.8	2.9	-----
Sign painters	3	10	20	-----	4	3	1	3.4	14.7	24.1	-----	3.8	1.3	.7
Steam and sprinkler fitters	1	45	15	10	9	1	1	.5	28.8	17.4	6.3	3.6	.1	.1
Stonecutters	1	5	2	3	-----	-----	-----	1.1	2.1	4.3	3.9	-----	-----	-----
Stonemasons	6	28	11	4	3	-----	1	6.9	29.5	33.8	2.2	.3	-----	.3
Structural-iron workers	3	31	5	2	3	-----	-----	7.4	32.9	4.3	.7	1.4	-----	-----
Tile layers	4	21	9	2	7	-----	-----	4.5	26.6	11.3	3.0	3.3	-----	-----
Helpers and laborers	34	112	174	73	37	22	13	3.1	16.4	21.5	20.3	2.9	6.5	5.9
Bricklayers' tenders	2	13	30	19	11	1	3	5.2	18.2	20.3	16.2	6.4	1.0	1.3
Building laborers	2	8	25	16	5	9	4	2.7	14.7	21.6	23.8	2.1	8.1	7.1
Composition roofers' helpers	2	5	7	3	4	2	-----	1.3	14.3	16.0	4.9	28.6	7.1	-----
Elevator constructors' helpers	22	40	18	9	2	1	-----	23.5	38.7	20.3	2.6	.5	.3	-----
Marble setters' helpers	-----	7	15	3	2	1	-----	-----	11.3	24.7	.8	1.7	.9	-----
Plasterers' laborers	3	12	26	6	4	2	2	3.6	34.6	25.0	3.5	4.9	3.2	.8
Plumbers' laborers	2	4	7	6	1	2	2	3.0	16.0	18.4	7.2	1.6	2.5	11.2
Steam and sprinkler fitters' helpers	-----	2	21	4	2	1	-----	-----	2.4	24.1	7.9	.5	.5	-----
Terrazzo workers' helpers	-----	10	12	3	3	2	2	-----	16.8	15.2	.5	1.5	3.3	4.1
Tile layers' helpers	1	11	13	4	3	1	-----	2.2	42.0	24.0	2.0	2.6	3.9	-----

[1] Less than a tenth of 1 percent.

The largest increases, amounting to 50 percent over the 1941 scales, were received by some of the electricians in Wichita, wood lathers in Memphis, residential painters in Buffalo, and bricklayers' tenders in

Los Angeles. Increases of at least 40 percent were obtained by structural-steel painters in Buffalo, residential painters in Little Rock, roofers in Phoenix, building laborers in Grand Rapids, and plasterers' laborers in Scranton. However, the 1941 rates in all of the above were considerably lower than the average for the 75 cities.

Rate Changes Prior to Effective Date of Stabilization Agreement

On May 22, 1942, the contracting agencies of the United States Government and the Building Trades Department of the A. F. of L. agreed that on all war construction work in the continental United States the wages paid under collective-bargaining agreements as of July 1, 1942, should remain in full force and effect for a period of at least 1 year, subject to annual renewal for the duration of the war. All renewals were to contain the rates paid as of July 1, 1942, unless specifically declared otherwise by an especially established Wage Adjustment Board composed of representatives from the building-trades unions and the contracting agencies of the United States, with the Assistant Secretary of Labor acting as chairman.

During the period of slightly more than 5 weeks between the announcement of this agreement and its effective date, 265 wage increases went into effect, 200 of which were for journeymen and 65 for laborers and helpers. These include approximately 14 percent of the total increases (1,950) granted during the 13-month period, June 1, 1941–July 1, 1942. About 80 percent of the advance in the level of union wages during the 13-month period occurred during the 51 weeks between June 1, 1941, and May 22, 1942, while 20 percent took place during the approximate 5-week interval, May 22–July 1, 1942. Although no exact information is avilable as to the number of wage changes which were negotiated during the same period in other years, it is known that a considerable proportion of building-trades agreements are normally negotiated during the spring and early summer months.

In 78 of the total 265 increases effective after May 22, the pay increase represented the second rise during the 13-month period ending July 1, 1942. Six of these were the result of automatic adjustments allowed by the terms of agreements negotiated some months previously. Of the 72 negotiated increases, 29 took place during the month of June after the expiration of agreements, and therefore represented annual adjustments. In 43 instances, the wage increases negotiated during the May 22–July 1 interval represented second increases within a year's time.

The wage increases negotiated during the 5-week interval following May 22 were slightly smaller in amount than those negotiated during the whole 13 months, June 1, 1941–July 1, 1942. The average, to (median) increase among the 1,950 increases from June 1, 1941, to July 1, 1942, amounted to 10 percent, with laborers' increases averaging almost 12 percent. In the last 5 weeks of this period the average (median) amount of the 265 wage increases was slightly more than 8 percent. The journeymen affected received an average (median) increase of about 8 percent, while the median for helpers and laborers amounted to almost 10 percent.

Average Rate Changes in Each City [5]

Based on comparable rates for June 1, 1941, and July 1, 1942, building-trades workers in Portland, Maine, received the largest average increases (21.6 percent) during that period. All except two of the trades covered in that city obtained wage increases. Mobile's average was second (19.3 percent) and Oklahoma City's 16.3 percent was next in line. Twenty-seven other cities had average increases of at least 10 percent, and only 18 failed to equal the average increase (6.3 percent) for the combined 75 cities. (See table 7.)

TABLE 7.—*Percent of Change in Union Building-Trades Wage Rates in Each City, June 1, 1941, to July 1, 1942*

City	Percent of increase			City	Percent of increase		
	All trades	Journeymen	Helpers and laborers		All trades	Journeymen	Helpers and laborers
All cities	6.3	5.6	10.0	Mobile, Ala	19.3	18.6	24.9
				Nashville, Tenn	8.8	8.3	11.2
Atlanta, Ga	14.6	14.6	(1)	Newark, N. J	5.4	4.4	9.8
Baltimore, Md	9.6	9.2	11.2	New Haven, Conn	9.5	9.4	9.6
Binghamton, N. Y	8.9	11.1	[2] 1.8	New Orleans, La	7.9	2.6	17.6
Birmingham, Ala	8.1	8.3	7.7	New York, N. Y	.7	.6	1.1
Boston, Mass	6.4	4.7	16.8	Norfolk, Va	13.1	11.4	21.3
Buffalo, N. Y	11.3	10.6	14.4	Oklahoma City, Okla	16.3	7.3	29.1
Butte, Mont	.5	.8	0	Omaha, Nebr	10.9	9.1	16.0
Charleston, S. C	11.7	17.3	0	Peoria, Ill	10.5	9.3	14.3
Charleston, W. Va	14.5	11.4	23.5	Philadelphia, Pa	8.2	6.2	16.7
Charlotte, N. C	13.1	13.5	4.6	Phoenix, Ariz	8.9	8.2	10.3
Chicago, Ill	.7	.1	6.9	Pittsburgh, Pa	8.3	7.9	10.6
Cincinnati, Ohio	3.9	3.6	5.8	Portland, Maine	21.6	21.4	22.5
Cleveland, Ohio	2.4	2.5	.4	Portland, Oreg	11.0	10.6	14.3
Columbus, Ohio	11.0	8.7	18.4	Providence, R. I	12.4	12.8	11.7
Dallas, Tex	7.8	9.2	.3	Reading, Pa	5.7	4.3	13.1
Dayton, Ohio	9.1	7.5	22.2	Richmond, Va	10.2	7.0	19.1
Denver, Colo	4.4	2.8	11.2	Rochester, N. Y	10.7	10.4	11.8
Des Moines, Iowa	5.2	7.1	(3)	Rock Island (Ill.) district [3]	7.2	8.9	1.0
Detroit, Mich	7.0	6.2	12.4	St. Louis, Mo	2.1	2.2	1.7
Duluth, Minn	6.5	6.1	9.4	St. Paul, Minn	9.4	9.8	8.7
El Paso, Tex	8.8	6.7	18.6	Salt Lake City, Utah	5.6	9.4	.9
Erie, Pa	11.5	10.4	16.8	San Antonio, Tex	7.1	7.2	6.5
Grand Rapids, Mich	14.0	10.9	37.1	San Francisco, Calif	13.8	14.1	11.5
Houston, Tex	9.6	9.1	19.8	Scranton, Pa	5.1	4.1	15.2
Indianapolis, Ind	8.5	7.9	10.0	Seattle, Wash	4.9	4.7	6.6
Jackson, Miss	[4] 7.0	7.0	(4)	South Bend, Ind	10.7	8.0	17.1
Jacksonville, Fla	3.9	6.1	(3)	Spokane, Wash	11.8	9.4	24.1
Kansas City, Mo	7.5	8.0	5.5	Springfield, Mass	12.0	12.3	10.5
Little Rock, Ark	10.7	10.7	(1)	Tampa, Fla	14.2	10.7	22.9
Los Angeles, Calif	15.9	15.8	17.2	Toledo, Ohio	10.5	8.5	21.3
Louisville, Ky	8.8	7.4	15.3	Washington, D. C	1.9	1.7	3.6
Madison, Wis	10.5	9.4	13.1	Wichita, Kans	14.7	11.7	29.5
Manchester, N. H	10.8	13.5	0	Worcester, Mass	9.3	8.9	12.6
Memphis, Tenn	3.8	2.1	11.1	York, Pa	8.7	9.3	8.4
Milwaukee, Wis	11.4	10.5	16.6	Youngstown, Ohio	5.4	6.6	.2
Minneapolis, Minn	6.0	6.4	3.0				

[1] Insufficient quotations having comparable data for both years.
[2] Decrease.
[3] Less than a tenth of 1 percent.
[4] No helper and laborer scales reported.
[5] Includes Rock Island, Ill., Davenport, Iowa, and Moline, Ill.

[6] These net changes are based on specific rates weighted by membership for each union. Only those trades showing comparable data for both years are included. Inasmuch as building-trades wage rates tend to be changed by additions of either 12½ or 10 cents per hour, specific increases for 1942 will reflect larger percentage changes among those trades with comparatively lower actual scales: e. g., if the carpenters in city A changed their scale from $1.00 to $1.125 an increase of 12½ percent is registered, while if in city B the increase is from $1.50 to $1.625, the percentage change is only 8⅓ percent. For this reason those cities which had lower scales tend to show greater percentage increases than those which had higher scales. Both table 7 and table 8 should be consulted in making comparisons between cities.

Among the journeymen, Portland, Maine, again led the skilled union members having received average increases of 21.4 percent. Mobile followed with an increase of 18.6 percent and Charleston, S. C., was third with 17.3 percent. Nineteen additional cities bettered their 1941 rates by at least 10 percent and only 15 had average increases of less than the average of 5.6 percent for all cities.

In the helper and laborer trades, Grand Rapids was high, with an average gain of 37.1 percent. Each of the less skilled trades in that city received a raise in wage rates, some as much as 40 percent. Wichita's increase was 29.5 percent and Oklahoma City's increase was 29.1 percent. The 10.0-percent average increase for all cities was bettered by 39 others and equaled by 1. Three cities, Butte, Charleston, S. C., and Manchester, maintained their average for their trades at the same level as in 1941. Binghamton showed a decrease because of a reduction in the scale for bricklayers' tenders from 82½ to 75 cents.

Average Wage Rates in Each City [6]

Union journeymen's wage rates were highest in Newark, averaging $1.854 per hour on July 1, 1942. (See table 8.) This average, reflecting wage scales for carpenters, cement finishers, rodmen, and composition roofers that were higher than the corresponding rates in New York, exceeded the average for the latter city ($1.841) which ranked second. Pittsburgh's average of $1.732 was next in line, followed by Chicago ($1.712) and Washington ($1.679). In addition to these 5 cities, Detroit, Buffalo, Cleveland, Philadelphia, and Youngstown exceeded the average for all cities ($1.556). Thirteen others had journeyman rates which averaged at least $1.50 per hour; only 6 were below $1.25, Charlotte being the lowest at $1.027.

Among the helper and laborer group Newark's average of $1.221 again was higher than all other cities included in the study, with New York second ($1.215), followed by Chicago ($1.109). Seattle, Milwaukee, South Bend, Cleveland, Boston, Spokane, Peoria, and San Francisco also had averages of more than $1.00. An additional 25 cities exceeded the $0.839 average for all cities combined. Only 22 cities had averages that were below 75 cents; four were under 50 cents, Atlanta, Nashville, Charlotte, and Charleston, S. C.

[6] The averages presented are weighted according to the number of members in each local union covered by the reported rates and in many cases may be lower than a simple average of specific rates due to heavy memberships at the less skilled trades which carry the lower rates. While a comparison of average rates between cities where averages including the influence of the weighting factor (membership) may be misleading due to unusually high or low memberships in some cities in comparison with the same trades in other cities, a weighted average of this kind is obviously more realistic than a simple average. In the latter case, a wage rate for a trade including half a dozen members would be given the same importance as a trade including several hundred members.

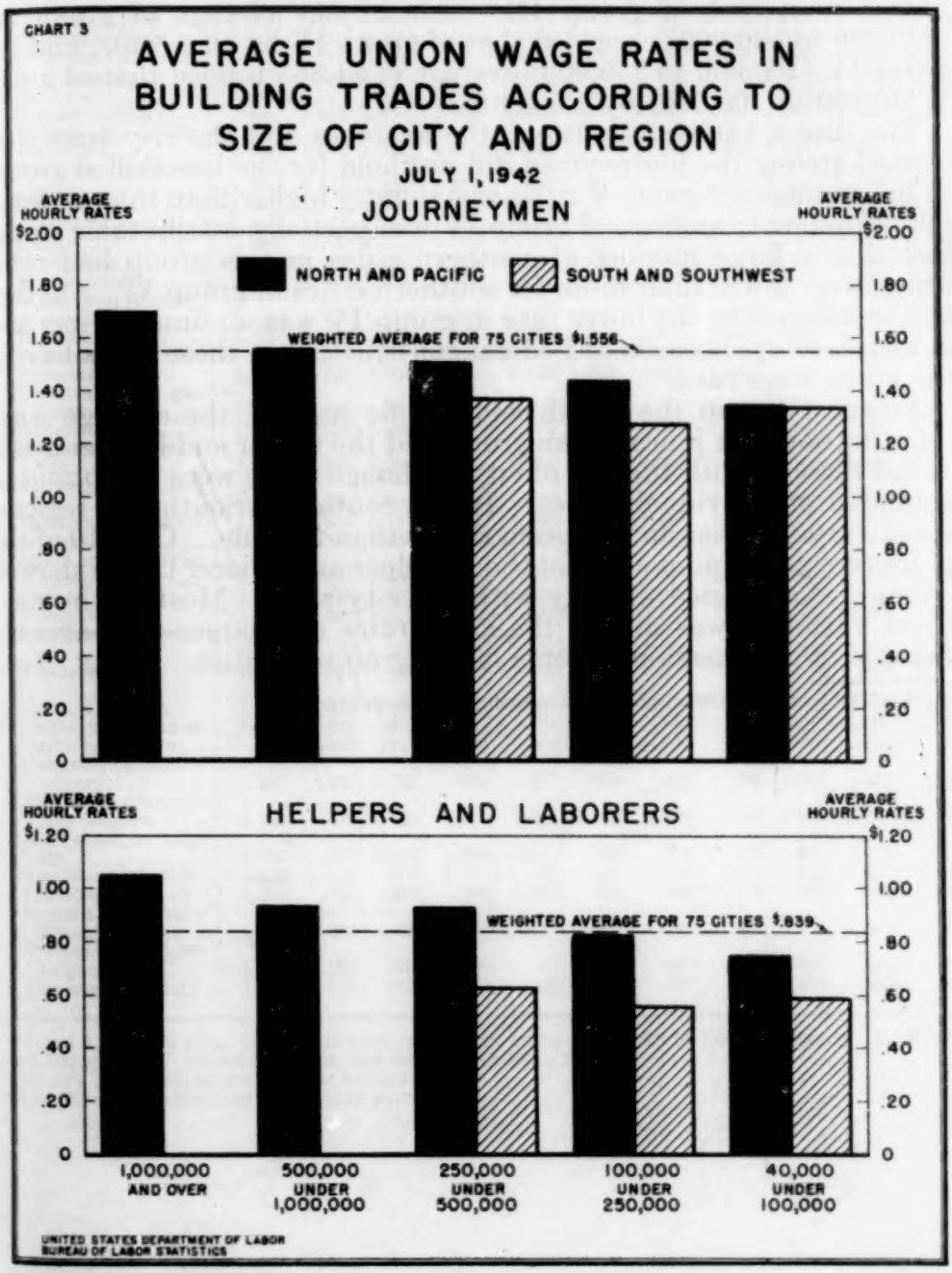
TABLE 8.—*Average Union Hourly Wage Rates in the Building Trades, by Cities and Population Groups, July 1, 1942*

City and population group	Average hourly rate
Journeymen	
Population group I (over 1,000,000):	
New York, N. Y	$1.841
Chicago, Ill	1.712
Average for group I	*1.696*
Detroit, Mich	1.616
Philadelphia, Pa	1.562
Los Angeles, Calif	1.429
Population group II (500,000 to 1,000,000):	
Pittsburgh, Pa	1.732
Washington, D. C	1.679
Buffalo, N. Y	1.611
Cleveland, Ohio	1.579
Average for group II	*1.565*
St. Louis, Mo	1.545
Boston, Mass	1.541
San Francisco, Calif	1.496
Baltimore, Md	1.473
Milwaukee, Wis	1.413
Population group III (250,000 to 500,000):	
Newark, N. J	1.854
Cincinnati, Ohio	1.553
Toledo, Ohio	1.548
Rochester, N. Y	1.546
Kansas City, Mo	1.523
Indianapolis, Ind	1.504
Denver, Colo	1.493
Seattle, Wash	1.482
Columbus, Ohio	1.477
Average for group III	*1.468*
Louisville, Ky	1.438
Houston, Tex	1.432
St. Paul, Minn	1.422
Birmingham, Ala	1.419
Minneapolis, Minn	1.414
Portland, Oreg	1.410
Providence, R. I	1.405
Dallas, Tex	1.392
Memphis, Tenn	1.343
San Antonio, Tex	1.334
Atlanta, Ga	1.310
New Orleans, La	1.295
Population group IV (100,000 to 250,000):	
Youngstown, Ohio	1.594
Dayton, Ohio	1.552
Peoria, Ill	1.539
New Haven, Conn	1.518
South Bend, Ind	1.507
Springfield, Mass	1.495
Spokane, Wash	1.471
Erie, Pa	1.456
Rock Island (Ill.) district [1]	1.452
Grand Rapids, Mich	1.423
Oklahoma City, Okla	1.398
Des Moines, Iowa	1.396
Omaha, Nebr	1.364
Average for group IV	*1.363*
Worcester, Mass	1.355
Reading, Pa	1.350
Salt Lake City, Utah	1.340
Nashville, Tenn	1.310
Norfolk, Va	1.302
Scranton, Pa	1.297
Duluth, Minn	1.286
Jacksonville, Fla	1.286
Richmond, Va	1.257
Wichita, Kans	1.243
Tampa, Fla	1.215
Charlotte, N. C	1.027
Population group V (40,000 to 100,000):	
Charleston, W. Va	1.535
Butte, Mont	1.518
Mobile, Ala	1.397
Binghamton, N. Y	1.389
Phoenix, Ariz	1.351
Average for group V	*1.348*
Little Rock, Ark	1.340
Charleston, S. C	1.329
Journeymen—Continued	
Population Group V—Continued.	
El Paso, Tex	$1.312
Madison, Wis	1.307
Manchester, N. H	1.290
Portland, Maine	1.229
Jackson, Miss	1.191
York, Pa	1.107
Helpers and laborers	
Population group I (over 1,000,000):	
New York, N. Y	1.215
Chicago, Ill	1.109
Average for group I	*1.042*
Detroit, Mich	.922
Los Angeles, Calif	.902
Philadelphia, Pa	.845
Population group II (500,000 to 1,000,000):	
Milwaukee, Wis	1.031
Cleveland, Ohio	1.020
Boston, Mass	1.017
San Francisco, Calif	1.001
Pittsburgh, Pa	.974
St. Louis, Mo	.933
Average for group II	*.933*
Washington, D. C	.889
Buffalo, N. Y	.867
Baltimore, Md	.752
Population group III (250,000 to 500,000):	
Newark, N. J	1.221
Seattle, Wash	1.044
Minneapolis, Minn	.975
Portland, Oreg	.969
Toledo, Ohio	.958
Kansas City, Mo	.941
St. Paul, Minn	.931
Cincinnati, Ohio	.914
Indianapolis, Ind	.867
Providence, R. I	.859
Rochester, N. Y	.853
Denver, Colo	.851
Average for group III	*.798*
Columbus, Ohio	.797
Louisville, Ky	.724
New Orleans, La	.652
Houston, Tex	.649
Birmingham, Ala	.617
Dallas, Tex	.598
San Antonio, Tex	.526
Memphis, Tenn	.507
Atlanta, Ga	.428
Population group IV (100,000 to 250,000):	
South Bend, Ind	1.021
Spokane, Wash	1.012
Peoria, Ill	1.001
New Haven, Conn	.936
Erie, Pa	.874
Scranton, Pa	.852
Worcester, Mass	.841
Rock Island (Ill.) district [1]	.821
Springfield, Mass	.801
Duluth, Minn	.798
Dayton, Ohio	.792
Salt Lake City, Utah	.787
Youngstown, Ohio	.779
Des Moines, Iowa	.754
Reading, Pa	.753
Grand Rapids, Mich	.733
Omaha, Nebr	.721
Average for group IV	*.670*
Oklahoma City, Okla	.663
Wichita, Kans	.661
Richmond, Va	.549
Tampa, Fla	.537
Norfolk, Va	.534
Jacksonville, Fla	.513
Nashville, Tenn	.469
Charlotte, N. C	.439

[1] Includes Rock Island, Ill., Davenport, Iowa, and Moline, Ill.

TABLE 8.—*Average Union Hourly Wage Rates in the Building Trades, by Cities and Population Groups, July 1, 1942*—Continued

City and population group	Average hourly rate	City and population group	Average hourly rate
Population group V (40,000 to 100,000):		Binghamton, N. Y	$0.750
Butte, Mont	$0.969	*Average for group V*	.674
Portland, Maine	.860	Mobile, Ala	.669
Madison, Wis	.857	York, Pa	.658
Phoenix, Ariz	.842	El Paso, Tex	.624
Charleston, W. Va	.789	Charleston, S. C	.413
Manchester, N. H	.777		



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Average Wage Rates by Size of City

Partly owing to larger increases in membership among cities of size group IV,[7] the average wage rate for all trades combined was slightly higher in the group V cities than in the former (table 9). Otherwise there was a direct variation by city-size groups.

The average wage rates for journeymen varied directly with the group size of the cities, and this despite the fact that only 14 of the individual skilled trades showed direct variation among all city-size groups. Group I cities (over 1,000,000 population) had an average rate ($1.695) 13.0 cents higher than that of group II cities (500,000 to 1,000,000). Group II's average ($1.565) was in turn 9.7 cents higher than that of group III. The $1.468 average of group III (250,000 to 500,000) exceeded that of group IV by 10.5 cents, and the group IV (100,000 to 250,000) average of $1.363 topped that of group V (40,000 to 100,000) by 1.5 cents.

The direct variation between the averages and the city sizes that existed among the journeymen did not hold for the less-skilled group, as the average for group V cities was slightly higher than that of group IV. The lower average of group IV was partially attributable to the fact that a large number of southern cities in this group had rates which were lower than those for southern cities in group V. Another factor influencing the lower rate in group IV was an unusual increase in membership, because of Federal construction in those cities having the lower wage rates.[7]

Among cities in the North and Pacific regions, the average wage rates for both the journeyman group and the helper and laborer group varied directly with the size of city, although there were exceptions in a number of individual trades. In the South and Southwest regions, direct variation was an exception rather than the rule. Only 10 of the 27 journeyman trades and 2 of the 10 helper and laborer trades showed averages that varied directly with the city sizes. Most of the non-direct variation was due to the lower rates and larger-than-average increase in membership in some of the group IV cities.

[7] See p. 1254 for explanation of effect of membership changes on averages

TABLE 9.—*Average Union Wage Rate in Each Building Trade, by Region and Population Group, July 1, 1942*

Trade	Cities in population group [1]										
	Group I [2]	Group II [2]	Group III			Group IV			Group V		
	North and Pacific	North and Pacific	All cities	North and Pacific	South and Southwest	All cities	North and Pacific	South and Southwest	All cities	North and Pacific	South and Southwest
All building trades	$1.572	$1.425	$1.254	$1.346	$1.099	$1.084	$1.233	$0.940	$1.087	$1.075	$1.095
Journeymen	1.695	1.565	1.468	1.514	1.377	1.363	1.439	1.270	1.348	1.358	1.342
Asbestos workers	1.639	1.648	1.514	1.478	1.548	1.481	1.474	1.485	1.451	1.568	1.413
Boilermakers	1.767	1.618	1.601	1.657	1.500	1.594	1.607	1.478	1.559	1.619	1.504
Bricklayers	1.887	1.688	1.694	1.725	1.619	1.608	1.641	1.550	1.603	1.630	1.568
Carpenters	1.642	1.513	1.414	1.477	1.304	1.264	1.379	1.162	1.278	1.256	1.290
Cement finishers	1.651	1.549	1.436	1.459	1.398	1.373	1.403	1.347	1.340	1.482	1.305
Electricians, inside wiremen	1.783	1.672	1.597	1.619	1.553	1.516	1.534	1.494	1.441	1.401	1.462
Elevator constructors	1.714	1.653	1.539	1.572	1.488	1.484	1.507	1.397	1.362	1.379	1.344
Glaziers	1.688	1.477	1.336	1.375	1.218	1.185	1.257	.978	1.175	1.244	1.134
Granite cutters	1.527	1.312	1.354	1.354	.....	.927	.927	.....	1.366	1.366	.....
Lathers	1.803	1.700	1.583	1.606	1.512	1.526	1.538	1.500	1.371	1.447	1.344
Machinists	1.700	1.476	1.421	1.505	1.379	1.478	1.500	[3]	1.392	.....	1.392
Marble setters	1.721	1.560	1.582	1.535	1.525	1.456	1.454	1.458	1.549	1.527	1.582
Mosaic and terrazzo workers	1.640	1.470	1.411	1.384	1.487	1.356	1.360	1.349	1.461	1.442	1.479
Painters	1.596	1.459	1.370	1.408	1.276	1.296	1.314	1.267	1.183	1.160	1.201
Paperhangers	1.637	1.496	1.355	1.398	1.203	1.367	1.391	1.195	1.179	1.165	1.200
Plasterers	1.896	1.736	1.605	1.654	1.500	1.562	1.609	1.492	1.428	1.583	1.394
Plumbers and gas fitters	1.816	1.628	1.588	1.595	1.569	1.510	1.518	1.500	1.575	1.518	1.610
Rodmen	1.675	1.691	1.432	1.535	1.276	1.426	1.520	1.275	1.316	1.508	1.256
Roofers, composition	1.523	1.454	1.290	1.390	1.124	1.106	1.216	.972	1.252	1.249	1.256
Roofers, slate and tile	1.839	1.639	1.364	1.471	1.232	1.213	1.325	1.054	1.293	1.250	1.304
Sheet-metal workers	1.712	1.583	1.481	1.517	1.420	1.356	1.404	1.256	1.313	1.388	1.287
Sign painters	1.818	1.621	1.468	1.497	1.388	1.362	1.398	1.259	1.226	1.351	1.134
Steam and sprinkler fitters	1.724	1.594	1.580	1.571	1.606	1.503	1.505	1.500	1.566	1.557	1.582
Stonecutters	1.699	1.396	1.322	1.341	1.008	1.307	1.307	.....	.....	.....	.....
Stonemasons	1.571	1.608	1.679	1.692	1.630	1.581	1.584	1.563	1.436	1.498	1.333
Structural-iron workers	1.811	1.752	1.596	1.651	1.513	1.571	1.616	1.460	1.525	1.563	1.491
Tile layers	1.626	1.511	1.454	1.479	1.390	1.414	1.423	1.403	1.505	1.458	1.547
Helpers and laborers	1.042	.933	.798	.930	.621	.670	.820	.569	.674	.753	.590
Bricklayers' tenders	1.091	1.018	.909	1.045	.674	.774	.873	.659	.806	.893	.690
Building laborers	.969	.892	.765	.892	.608	.650	.799	.552	.646	.723	.567
Composition roofers' helpers	.963	.891	.783	.854	.617	.613	.848	.556	.775	.817	.754
Elevator constructors' helpers	1.259	1.183	1.116	1.153	1.054	1.035	1.058	.992	.955	[3]	.957
Marble setters' helpers	1.267	.993	1.034	1.056	[3]	.880	.914	.638	.967	1.175	.800
Plasterers' laborers	1.320	1.146	.906	1.115	.672	.809	1.033	.683	.842	.915	.750
Plumbers' laborers	1.281	.948	.818	.946	.602	.668	.790	.633	.788	.788	.....
Steam and sprinkler fitters' helpers	1.331	.916	.909	.909	.....	.667	.768	.645	.754	.896	.711
Terrazzo workers' helpers	1.227	1.033	.944	1.000	.707	.889	.955	.642	.955	.955	[3]
Tile layers' helpers	1.162	1.031	.925	.983	.639	.855	.909	.628	.858	.993	.806

[1] Group I includes cities of over 1,000,000 population; group II, 500,000 to 1,000,000; group III, 250,000 to 500,000; group IV, 100,000 to 250,000; and group V, 40,000 to 100,000.
[2] No city of this size in the South or Southwest.
[3] Insufficient quotations to compute an average.

Regional Differences

Differences in average wages between the North and Pacific and South and Southwest were shown in favor of the former for the combined journeyman trades and the combined helper and laborer trades in all three comparable city-size groups. (See table 9.) However, the averages for all trades (journeymen and helpers and laborers) did not show a difference in favor of size IV over size V cities because of the unusual weighting (membership) factors involved. Cities in the South, because of large amounts of Federal construction, generally increased their union membership to a greater extent than those in the North. In addition, the wage rates for journeymen in a number of instances are higher in the South than in the North.

Of the 74 comparisons of average wage rates between the 2 regions among the 27 journeyman trades, 58 showed differences in favor of the North and Pacific. The South and Southwest, chiefly in group V cities, showed higher average rates in the other 16 cases.

Among the helpers and laborers, the North and Pacific showed average rates higher than the corresponding averages in the South and Southwest in every comparison in each of the 3 city-size groups. In contrast to the journeyman scales, helper and laborer wage rates in the South and Southwest rarely equal or exceed those in the North and Pacific.

Overtime Rates

Slightly more than half of the quotations covering building-trades workers provided rates of time and a half for overtime, and nearly all of the remainder reported double rates. Only 12 of 2,957 quotations did not list a penalty scale. Time and a half covered 44.3 percent of the union members, while double time was provided for 55.6 percent.

The double-time rates listed in table 10 are not effective on Federal war construction, as the stabilization agreement between the various Federal agencies and the Building Trades Department of the American Federation of Labor provides for time and a half for all overtime. Some local unions also have reduced their rates on private work from double time to time and a half for the duration of the war, but these latter changes are reflected in the table.

TABLE 10.—*Overtime Rates Provided in Building-Trades Union Agreements, July 1, 1942*

Trade	Number of quotations showing initial overtime rates of—			Percent of union members having initial overtime rates of—		
	Time and a half	Double time	No penalty rate specified	Time and a half	Double time	No penalty rate specified
All building trades	1,506	1,439	12	44.3	55.6	0.1
Journeymen	1,077	1,174	10	34.4	65.5	.1
Asbestos workers	33	37		45.9	54.1	
Boilermakers	8	42		16.3	83.7	
Bricklayers	25	67		14.4	85.6	
Carpenters	58	72	2	30.6	69.4	(1)
Cement finishers	59	28		57.6	42.4	
Electricians, inside wiremen	56	42		50.0	50.0	
Elevator constructors	28	105		22.7	77.3	
Glaziers	60	16		56.4	43.6	
Granite cutters	15	12		32.5	67.5	
Lathers	17	67	1	9.2	87.6	3.2
Machinists	19	15		48.0	52.0	
Marble setters	20	46		15.1	84.9	
Mosaic and terrazzo workers	34	29		57.3	42.7	
Painters	148	35	1	57.3	42.5	.2
Paperhangers	65	15	1	66.3	33.4	.3
Plasterers	32	56		12.4	87.6	
Plumbers and gas fitters	34	56		32.9	67.1	
Rodmen	4	67		10.6	89.4	
Roofers, composition	95	20		81.2	18.8	
Roofers, slate and tile	50	19		66.1	33.9	
Sheet-metal workers	18	53		17.9	82.1	
Sign painters	62	12		60.7	39.3	
Steam and sprinkler fitters	38	73		37.0	63.0	
Stonecutters	36	19	5	27.2	68.1	4.7
Stonemasons	22	52		26.8	73.2	
Structural-iron workers	2	79		2.1	97.9	
Tile layers	39	40		51.1	48.9	
Helpers and laborers	429	265	2	70.9	29.0	.1
Bricklayers' tenders	83	27		78.8	21.2	
Building laborers	78	17		73.3	26.7	
Composition roofers' helpers	31	5		78.5	21.5	
Elevator constructors' helpers	20	81		25.3	74.7	
Marble setters' helpers	27	19		30.5	69.5	
Plasterers' laborers	57	29	1	60.5	37.7	1.8
Plumbers' laborers	28	15		49.4	50.6	
Steam and sprinkler fitters' helpers	11	38		13.6	86.4	
Terrazzo workers' helpers	57	15		64.2	35.8	
Tile layers' helpers	37	19	1	45.7	54.2	.1

[1] Less than a tenth of 1 percent.

Sunday Rates

On July 1, 1942, 79.5 percent of the quotations covering 80.9 percent of the building-trades workers provided for the payment of double time for Sunday work. Practically all of the other quotations stipulated a rate of time and a half (table 11). Although double time for Sunday work was still overwhelmingly predominant, it was not so prevalent as in former years, owing to the fact that a number of locals reduced the penalty scale to time and a half for the duration of the war. Even where provided in the agreements, no double-time scales are effective on Federal construction projects, as the stabilization agreement between the various Federal agencies and the Building Trades Department of the American Federation of Labor provides for time and a half for Sunday.

TABLE 11.—*Sunday Rates Provided in Building-Trades Union Agreements, July 1, 1942*

Trade	Number of quotations showing Sunday rates of—			Percent of union members having Sunday rates of—		
	Time and a half	Double time	No penalty rate specified	Time and a half	Double time	No penalty rate specified
All building trades	597	2,351	9	19.0	80.9	0.1
Journeymen	471	1,783	7	19.0	80.9	.1
Asbestos workers	26	44		38.0	62.0	
Boilermakers	5	44	1	14.6	73.1	12.3
Bricklayers	7	85		7.7	92.3	
Carpenters	18	114		9.7	90.3	
Cement finishers	23	64		26.1	73.9	
Electricians, inside wiremen	38	60		40.5	59.5	
Elevator constructors	5	128		1.0	99.0	
Glaziers	30	46		17.1	82.9	
Granite cutters	5	22		16.6	83.4	
Lathers	5	80		1.4	98.6	
Machinists	8	26		29.8	70.2	
Marble setters	6	60		2.3	97.7	
Mosaic and terrazzo workers	6	56	1	5.9	93.6	.5
Painters	91	93		44.3	55.7	
Paperhangers	35	46		49.2	50.8	
Plasterers	15	73		7.4	92.6	
Plumbers and gas fitters	16	74		21.8	78.2	
Rodmen	4	67		10.6	89.4	
Roofers, composition	36	79		34.2	65.8	
Roofers, slate and tile	21	48		30.9	69.1	
Sheet-metal workers	12	59		11.8	88.2	
Sign painters	23	51		14.2	85.8	
Steam and sprinkler fitters	19	92		28.9	71.1	
Stonecutters	6	49	5	4.8	90.5	4.7
Stonemasons	2	72		.5	99.5	
Structural-iron workers	2	79		2.1	97.9	
Tile layers	7	72		6.5	93.5	
Helpers and laborers	126	568	2	19.0	81.0	(1)
Bricklayers' tenders	31	79		16.7	83.3	
Building laborers	29	66		20.3	79.7	
Composition roofers' helpers	12	23	1	37.3	61.9	.8
Elevator constructors' helpers		101			100.0	
Marble setters' helpers	3	43		2.4	97.6	
Plasterers' laborers	18	69		16.3	83.7	
Plumbers' laborers	13	30		17.6	82.4	
Steam and sprinkler fitters' helpers	3	46		8.7	91.3	
Terrazzo workers' helpers	10	62		5.0	95.0	
Tile layers' helpers	7	49	1	4.3	95.6	.1

[1] Less than a tenth of 1 percent.

Weekly Hours

TREND OF MAXIMUM WEEKLY HOURS [8]

Maximum straight-time weekly hours permitted by union agreements in the building trades were lengthened by an average of 0.8 percent during the period of the current study, June 1, 1941, to July 1, 1942 (table 12). Journeymen as a group were permitted to work at regular rates on a weekly schedule 1.4 percent longer than in 1941, when 22 percent of the membership had less than 40-hour work schedules. Helpers and laborers, as a whole, reduced their workweek by 0.9 percent, although their average workweek remained longer than that of journeymen (table 14). That the 40-hour week was more prevalent than in 1941 was largely the result of the stabilization agreement between the Building and Construction Trades Department of the A. F. of L. and the various Federal construction agencies.

[8] For method used to compute indexes of weekly hours, see p. 1254.

TABLE 12.—*Index of Union Weekly Hours in All Building Trades, 1907–42*

Year	All trades	Journeymen	Helpers and laborers	Year	All trades	Journeymen	Helpers and laborers
1907	110.0	109.3	113.1	1925	101.9	101.8	102.4
1908	108.3	107.7	110.8	1926	101.7	101.6	102.2
1909	106.8	106.4	108.5	1927	101.5	101.4	102.2
1910	105.5	105.2	106.6	1928	100.9	100.7	102.1
1911	105.1	104.8	106.4	1929	100.0	100.0	100.0
1912	104.8	104.5	106.1	1930	97.2	97.1	97.8
1913	104.6	104.2	106.1	1931	96.0	95.8	97.0
1914	104.2	103.9	105.5	1932	94.3	94.1	94.8
1915	104.1	103.8	105.4	1933	94.0	93.8	94.4
1916	103.7	103.4	105.1	1934	90.5	90.3	91.4
1917	103.5	103.2	104.7	1935	89.8	89.6	90.8
1918	102.9	102.6	104.3	1936	89.8	89.6	91.0
1919	102.4	102.2	103.3	1937	90.2	90.0	91.3
1920	101.9	101.7	102.7	1938	88.7	88.4	89.9
1921	101.8	101.6	102.7	1939	88.5	88.3	89.7
1922	101.8	101.7	102.4	1940	88.4	88.3	89.2
1923	101.9	101.8	102.6	1941	88.8	88.7	89.4
1924	101.9	101.8	102.6	1942	89.5	89.9	88.6

Of the 23 journeyman crafts for which indexes are shown, all except 6 showed an increase in straight-time hours allowed by union agreement.[9] The painters lengthened their schedules more than any other trade (5.8 percent), and the electricians were next in line with an increase of 4.0 percent.

These upward movements during the 13 months ending July 1, 1942, caused a majority of the journeyman trades to maintain the longest straight-time workweeks permitted since 1937. For electricians, painters, and tile layers, current straight-time workweeks were the longest since 1933.

TABLE 13.—*Indexes of Union Weekly Hours in Each Building Trade, 1916–42*

[1929=100]

Year	Asbestos workers	Bricklayers	Carpenters	Cement finishers	Electricians (inside wiremen)	Elevator constructors	Glaziers	Granite cutters	Lathers	Marble setters
1916	103.0	103.9	102.0	104.2	105.3	102.1	.....	100.3	103.5	100.5
1917	102.6	103.6	102.0	103.0	104.9	101.6	.....	100.3	103.0	100.4
1918	102.0	103.6	100.9	102.5	104.2	101.6	101.6	100.3	103.0	100.4
1919	101.0	103.4	100.3	101.7	103.3	100.9	101.6	100.3	102.7	100.0
1920	100.9	103.3	100.4	101.2	103.0	100.8	101.2	100.3	102.1	100.0
1921	101.1	103.3	100.3	101.2	103.0	100.7	101.6	100.1	101.9	100.1
1922	101.1	103.3	100.4	101.1	103.0	100.4	101.7	99.3	102.0	100.1
1923	100.9	103.3	100.7	101.1	103.0	100.5	101.2	99.9	102.3	100.1
1924	101.0	103.2	100.6	101.1	102.9	100.5	101.2	100.2	102.1	100.1
1925	101.0	103.1	100.6	100.8	102.9	100.4	100.8	100.3	101.8	100.1
1926	101.0	103.2	100.6	100.8	102.9	100.4	101.2	100.1	101.5	100.1
1927	100.9	102.7	100.6	100.5	102.9	100.4	101.5	100.3	101.0	100.0
1928	100.9	102.7	100.0	99.9	102.4	100.4	101.1	100.3	100.5	100.0
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	96.3	97.6	96.9	96.1	97.6	96.8	96.8	95.2	94.3	94.7
1931	94.0	96.1	95.4	95.0	96.6	95.0	95.1	94.4	93.8	93.0
1932	92.8	93.9	93.0	93.9	94.3	95.0	92.9	94.8	93.3	92.0
1933	91.8	94.9	91.6	95.7	94.3	93.0	92.9	93.6	92.9	91.9
1934	91.7	93.3	90.8	92.2	88.7	92.2	88.1	92.1	87.5	90.9
1935	91.0	93.2	90.4	92.0	85.1	91.9	87.5	92.1	87.4	90.9
1936	91.3	93.2	90.5	91.6	85.4	92.6	87.8	91.5	86.5	90.8
1937	91.0	94.1	90.3	91.7	89.6	92.4	87.9	91.9	87.7	90.8
1938	89.5	91.0	88.6	88.9	89.1	91.7	86.3	85.3	86.1	90.8
1939	89.5	91.1	88.6	88.9	88.8	89.5	86.1	85.3	85.4	90.8
1940	89.0	90.8	88.6	89.1	88.8	89.1	86.1	85.3	85.2	86.7
1941	89.5	91.0	89.1	89.5	89.3	88.9	86.6	85.3	86.0	86.9
1942	89.6	91.8	89.3	89.4	92.9	88.6	87.8	85.3	87.5	86.9

[9] See table 3, p. 1257, for changes in 4 trades not having indexes.

TABLE 13.—*Indexes of Union Weekly Hours in Each Building Trade, 1916–42*—Con.

Year	Mosaic and terrazzo workers	Painters	Plasterers	Plumbers and gas fitters	Roofers—composition	Roofers—slate and tile	Sheet-metal workers	Sign painters	Steam and sprinkler fitters	Stonecutters
1916	103.9	106.9	105.8	102.6	103.7	103.6	102.8	106.1	102.2	100.4
1917	103.9	106.8	105.7	102.5	103.0	101.8	102.7	105.6	102.1	100.3
1918	100.2	106.3	105.4	101.6	102.5	101.8	101.6	105.5	101.1	100.3
1919	100.2	106.1	105.4	101.3	102.5	101.5	101.2	105.4	101.0	100.3
1920	100.2	103.0	105.2	101.3	102.5	101.5	100.8	105.3	100.9	100.2
1921	100.2	103.1	104.9	101.1	100.6	101.4	100.8	105.4	100.8	100.2
1922	100.2	103.9	105.0	101.1	100.6	101.3	100.7	105.4	100.8	100.2
1923	100.2	103.6	105.5	101.1	100.6	101.6	100.7	103.4	100.8	100.1
1924	100.3	103.5	105.6	101.1	100.6	101.2	100.7	101.6	100.8	100.1
1925	100.2	103.8	105.3	101.1	100.6	101.2	100.7	101.6	100.8	100.3
1926	100.2	103.4	102.2	101.1	100.6	101.2	100.7	103.7	100.7	100.1
1927	99.9	103.0	101.8	100.9	100.6	101.2	100.4	101.8	100.5	100.1
1928	99.9	100.3	100.9	100.9	100.5	101.2	100.1	101.7	100.5	100.2
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	94.5	98.9	97.7	95.4	96.1	95.7	96.3	99.1	95.5	96.9
1931	93.6	98.0	97.0	94.1	94.9	94.1	94.7	98.1	94.5	96.4
1932	89.8	97.9	95.2	93.7	93.9	94.1	93.3	97.6	93.6	94.3
1933	91.0	97.7	97.2	93.3	95.1	94.1	93.2	97.8	93.1	94.3
1934	90.9	85.6	93.1	92.4	92.6	93.8	91.9	95.1	92.5	93.0
1935	90.3	85.5	91.6	91.8	92.5	92.6	92.0	93.1	92.2	92.7
1936	89.4	85.9	90.1	90.6	93.1	93.4	91.9	92.9	92.4	92.8
1937	90.0	85.9	90.2	91.1	93.2	93.3	92.0	92.9	92.5	92.8
1938	87.7	86.0	86.5	86.5	91.5	92.2	90.1	92.0	87.6	91.7
1939	87.7	85.7	86.5	86.8	91.6	92.2	90.1	91.9	88.0	91.8
1940	87.7	86.1	86.3	85.9	91.2	92.1	90.1	92.1	88.0	91.7
1941	88.0	86.3	86.6	86.3	91.9	92.1	90.8	92.1	88.5	90.2
1942	88.0	91.3	88.2	86.7	92.0	93.4	90.9	91.8	89.9	90.3

Year	Stonemasons	Structural-iron workers	Tile layers	Bricklayers' tenders	Building laborers	Elevator constructors' helpers	Marble setters' helpers	Plasterers' laborers	Steam and sprinkler fitters' helpers	Tile layers' helpers
1916	104.1	101.2	101.4	106.4	104.6	102.2	100.1	104.4	101.7	100.6
1917	104.0	101.0	101.1	106.3	103.5	101.7	100.1	104.2	101.7	99.8
1918	104.0	100.7	101.1	106.3	103.0	101.7	100.1	104.2	100.3	99.8
1919	103.4	100.5	100.7	105.9	101.0	100.9	100.0	103.8	100.2	99.5
1920	103.4	100.5	100.4	105.7	100.0	100.7	100.0	103.8	100.2	99.5
1921	103.5	100.5	100.5	105.7	100.0	100.5	100.2	103.4	100.2	99.6
1922	103.4	100.5	100.3	105.9	99.3	100.6	100.2	103.4	100.3	99.6
1923	103.4	100.5	100.6	105.9	100.0	100.6	100.2	103.5	100.3	100.5
1924	103.1	100.5	100.6	105.8	99.7	100.6	100.2	103.4	100.3	100.5
1925	103.1	100.2	100.6	105.7	99.8	100.5	100.2	103.3	100.3	100.5
1926	103.3	100.5	100.6	105.8	100.0	100.5	100.2	99.9	100.2	100.5
1927	103.1	100.5	100.5	105.8	100.2	100.5	100.0	99.8	100.4	100.5
1928	103.0	100.4	100.2	105.8	100.1	100.5	100.1	100.1	100.0	100.5
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	96.6	96.9	94.8	99.3	98.1	96.2	95.9	97.4	92.1	93.6
1931	94.9	95.8	93.6	98.8	97.0	94.7	94.2	96.6	91.8	92.6
1932	94.5	93.4	92.6	96.6	93.6	94.7	93.8	96.3	91.7	91.4
1933	93.8	93.1	92.4	96.1	93.2	92.5	94.0	94.7	91.6	91.5
1934	93.4	91.8	86.2	94.3	89.1	91.8	92.3	91.8	91.1	87.6
1935	93.3	90.7	86.2	94.2	89.0	91.5	92.3	90.7	91.1	76.3
1936	93.3	90.6	86.1	94.0	89.5	92.1	92.2	89.2	91.5	76.3
1937	93.3	90.2	89.8	94.3	89.7	91.7	92.2	89.2	91.8	81.6
1938	90.2	89.2	89.8	93.2	89.3	91.1	92.2	85.1	82.3	81.6
1939	90.2	89.1	89.8	92.9	89.2	86.8	92.2	84.8	82.2	81.6
1940	90.1	89.1	89.8	92.8	88.7	86.6	88.3	84.5	82.2	81.6
1941	90.2	89.5	90.2	92.7	88.9	86.8	88.6	84.8	82.2	81.9
1942	90.4	90.1	90.4	91.6	88.1	86.7	88.7	84.9	82.4	81.9

Among the helpers and laborers, 4 of the 7 trades experienced slight lengthenings of the average straight-time workweek. The other 3 reduced their weekly hours by small percentages, usually to the 40-hour standard.

WEEKLY HOURS, 1942

On July 1, 1942, the average maximum weekly hours permitted at straight time by union agreements in the 75 cities covered for the combined building trades was 39.5. Journeyman scales averaged 39.2 hours and those of the helpers and laborers averaged 40.3 hours. (See table 14.) These averages, of course, represent hours permitted at straight time and not actual hours worked.

The 40-hour week was by far the predominant work period in the industry, 82.4 percent of the union members being covered by this schedule. Agreements covering journeymen provided the 40-hour week for 85.3 percent of the members, and 74.5 percent of the helpers and laborers came under this provision.

Straight-time workweeks of more than 40 hours were extremely rare among agreements covering journeymen, affecting but three-tenths of 1 percent of the members. Among helpers the longer workweek was more common, 16.4 percent being scaled at 44 hours and an additional 1.3 percent at 48. Journeymen had agreements covering 12.1 percent of their number on a 35-hour basis and 2.2 percent under 30-hour provisions.[10] Various helper agreements provided the 30-hour week for 1.8 percent of the total membership and 5.8 percent were covered by 35-hour scales.

Among the individual trades rodmen reported all of their members under 40-hour scales. All but one-tenth of 1 percent of the tile layers and electricians were covered by this provision and all but three-tenths of 1 percent of the tile layers' helpers operated on a 40-hour basis. In addition, the 40-hour week was observed by over 90 percent of the asbestos workers, boilermakers, elevator constructors, machinists, slate and tile roofers, sheet-metal workers, steam and sprinkler fitters, structural-iron workers, and composition roofers' helpers. Only the granite cutters had less than a majority of their members covered by 40-hour scales. Owing primarily to the influence of New York's large membership, 64 percent of them observed a 35-hour week.

In addition to the granite cutters, the marble setters and stonecutters had substantial numbers of their members (47 percent and 41 percent, respectively) under 35-hour week provisions. Over one-third (34.6 percent) of the marble setters' helpers and over one-fourth of the bricklayers (28.9 percent), painters (25.6 percent), and terrazzo workers' helpers (27.9 percent) had 35-hour scales. This workweek also included at least one-fifth of the mosaic and terrazzo workers, sign painters, stonemasons, and bricklayers' tenders. Only the asbestos workers, electricians, rodmen, slate and tile roofers, tile layers, composition roofers' helpers, and tile layers' helpers, did not report the existence of 35-hour workweeks.

A workweek of 30 hours was provided for 37.5 percent of the plasterers, mostly in Boston, Los Angeles, New York, and San Francisco, and for 15.9 percent of the lathers, mostly in New York and San Francisco. All of the steam and sprinkler fitters' helpers, plumbers, and plumbers' laborers, and plasterers' laborers who observed the 30-hour week were in New York. Thirteen other trades reported this workweek for small percentages of their members.

[10] A less than 40-hour week at straight time would be effective only for private work since it is not observed on Federal projects under the terms of the stabilization agreement.

A 44-hour week was in effect for small numbers of 17 journeyman trades, in none of which it covered more than 2.5 percent. Six of the 10 helper trades reported some 44-hour weeks, the building laborers leading with 19.8 percent.

The carpenters, cement finishers, and roofers among the journeymen and building laborers and composition roofers' helpers reported a few 48-hour weeks.

TABLE 14.—*Distribution of Union Members in Each Building Trade, by Weekly Hours, July 1, 1942*

Trade	Average hours per week	Percent of union members having workweek of—				
		30 hours	35 hours	40 hours	44 hours	48 hours
All building trades [1]	39.5	2.1	10.4	82.4	4.5	0.5
Journeymen [2]	39.2	2.2	12.1	85.3	.1	.2
Asbestos workers	39.2	8.1		91.9		
Boilermakers	39.7		6.1	93.9		
Bricklayers	38.6	.1	28.9	70.8	.2	
Carpenters	39.4	(3)	11.3	88.6		.1
Cement finishers	39.7	.7	7.9	88.7	.7	2.0
Electricians, inside wiremen	40.0	.1		99.9	(3)	
Elevator constructors	39.8		5.0	92.5	2.5	
Glaziers	39.3		13.8	85.8	.4	
Granite cutters	36.8		64.0	36.0		
Lathers	38.2	15.9	4.8	79.3		
Machinists	39.7		5.0	95.0		
Marble setters	37.7		47.0	52.7	.3	
Mosaic and terrazzo workers	38.9		22.6	77.2	.2	
Painters	38.7	(3)	25.6	74.4	(3)	
Paperhangers	39.3		15.5	83.5	1.0	
Plasterers [4]	35.9	37.5	3.6	56.5		
Plumbers and gas fitters	37.9	19.1	3.9	77.0		
Rodmen	40.0			100.0		
Roofers, composition [5]	40.2		8.4	82.7	1.2	7.3
Roofers, slate and tile [6]	40.3			96.2	1.2	2.4
Sheet-metal workers	39.5		9.4	90.3	.3	
Sign painters	39.0		21.6	76.6	1.8	
Steam and sprinkler fitters	40.0	.1	1.2	98.1	.6	
Stonecutters	38.0		41.0	58.4	.6	
Stonemasons	38.9	(3)	21.8	78.2	(3)	
Structural-iron workers	39.9		2.8	97.2		
Tile layers	40.0	.1		99.9	(3)	
Helpers and laborers [7]	40.3	1.8	5.8	74.5	16.4	1.3
Bricklayers' tenders [8]	39.1	.9	23.3	67.2	7.1	
Building laborers	40.8	(3)	2.8	75.7	19.8	1.7
Composition roofers' helpers	40.5			94.2		5.8
Elevator constructors' helpers	39.5		11.9	86.5	1.6	
Marble setters' helpers	38.2	.5	34.6	64.9		
Plasterers' laborers [9]	38.8	12.9	4.0	76.0	6.1	
Plumbers' laborers	38.7	17.4	3.3	63.6	15.7	
Steam and sprinkler fitters' helpers	36.6	29.3	10.3	60.4		
Terrazzo workers' helpers	38.6		27.9	72.1		
Tile layers' helpers	40.0	.2		99.7	.1	

[1] Excludes less than a tenth of 1 percent having a 32-hour week, a tenth of 1 percent having a 42½-hour week, and less than a tenth of 1 percent having a 44¼-hour week. [2] Excludes a tenth of 1 percent having a 32-hour week, and a tenth of 1 percent having a 44¼-hour week. [3] Less than a tenth of 1 percent. [4] Excludes 2.4 percent having a 32-hour week. [5] Excludes four-tenths of 1 percent having a 44¼-hour week. [6] Excludes two-tenths of 1 percent having a 44¼-hour week. [7] Excludes two-tenths of 1 percent having a 42½ hour week. [8] Excludes 1.5 percent having a 42½-hour week. [9] Excludes 1 percent having a 42½-hour week.

Changes in Weekly Hours Between 1941 and 1942

The great majority of quotations of weekly hours set by union agreements showed no change during the 13-month period ending July 1, 1942, but the average workweek permitted at straight-time rates was lengthened, owing to increases in 2.8 percent of the quotations of the combined trades affecting 5.9 percent of the total union membership. (See table 15.) Lengthening of the workweek was more frequent among the journeyman trades (68 quotations affecting 7.4

percent of the members) than among the less skilled groups (13 quotations affecting 2.0 percent of the members), because of the fact that a number of journeyman trades formerly on a less-than-40-hour basis increased their workweeks in order to perform the large amount of war construction and abide by the stabilization agreement covering Federal projects. Quite often, the local unions also lengthened the workweek for private construction, with the stipulation that these increases be for the duration only, the normal workweek reverting to the former scale after the war.

Although the average workweek in the industry was lengthened, this condition did not exist in the helper and laborer group. A number of increases in the workweek were made, 13 of 669 quotations, affecting 2.0 percent of the membership, but these advances were more than offset by the 20 reductions in normal weekly hours covering 6.6 percent of the members. As with the journeymen, these changes were toward the 40-hour standard, but as a substantial number of the less skilled group were permitted to work more than 40 hours at straight time on June 1, 1941, reductions rather than increases were necessary.

TABLE 15.—*Number of Changes in Union Hour Quotations and Percent of Members Affected, July 1, 1942, Compared With June 1, 1941*

Trade	Number of quotations comparable with 1941	Number of quotations showing—			Percent of union members affected by—		
		Increase	Decrease	No change	Increase	Decrease	No change
All building trades	2,873	81	47	2,745	5.9	2.4	91.7
Journeymen	2,204	68	27	2,109	7.4	.9	91.7
Asbestos workers	68	3	1	64	1.3	.3	98.4
Boilermakers	50	1		49	.4		99.6
Bricklayers	90	5		85	5.7		94.3
Carpenters	126	3	3	120	3.0	1.6	95.4
Cement finishers	87	2	2	83	1.0	2.7	96.3
Electricians, inside wiremen	97	7	4	86	19.2	1.0	79.8
Elevator constructors	133	1	5	127	.3	4.6	95.1
Glaziers	76	2	4	70	11.2	1.1	87.7
Granite cutters	27			27			100.0
Lathers	85	3		82	9.4		90.6
Machinists	31			31			100.0
Marble setters	66			66			100.0
Mosaic and terrazzo workers	63			63			100.0
Painters	166	10	2	154	22.6	.3	77.1
Paperhangers	79	3	1	75	27.0	.4	72.6
Plasterers	87	7	1	79	8.2	.3	91.5
Plumbers and gas fitters	87	2	1	84	3.5	.3	96.2
Rodmen	71	1		70	.3		99.7
Roofers, composition	106	3		103	.5		99.5
Roofers, slate and tile	64	3		61	8.8		91.2
Sheet-metal workers	71	1	1	69	.7	.4	98.9
Sign painters	73	1	1	71	.7	2.6	96.7
Steam and sprinkler fitters	111	3	1	107	8.4	.1	91.5
Stonecutters	59			59			100.0
Stonemasons	74	4		70	1.9		98.1
Structural-iron workers	80	2		78	2.8		97.2
Tile layers	77	1		76	.3		99.7
Helpers and laborers	669	13	20	636	2.0	6.6	91.4
Bricklayers' tenders	106	1	4	101	.1	6.2	93.7
Building laborers	92	3	7	82	2.4	7.5	90.1
Composition roofers' helpers	30			30			100.0
Elevator constructor's helpers	101		3	98		1.2	98.8
Marble setters' helpers	45	1	1	43	1.6	.5	97.9
Plasterers' laborers	85	2	2	81	2.3	1.4	96.3
Plumbers' laborers	41	2	2	37	3.0	3.6	93.4
Steam and sprinkler fitters' helpers	49	2		47	1.4		98.6
Terrazzo workers' helpers	66	1		65	.2		99.8
Tile layers' helpers	54	1	1	52	.6	.6	98.8

All but 5 of the 27 journeyman trades reported some increases in the normal workweek. Those increases affecting the greatest number of members occurred among the electricians, chiefly those in Minneapolis, Newark, and New York; the glaziers in Chicago; the painters in Chicago, Denver, Toledo, and Washington; and the paperhangers in Chicago. Other smaller locals also reported some increases. Helper and laborer locals reported increased hours for all but 2 of the 10 trades, but as was mentioned before, decreases were more prevalent.

WAGE-RATE CHANGES IN UNITED STATES INDUSTRIES

THE following table gives information concerning wage-rate adjustments occurring during the month ending September 15, 1942, as shown by reports received from manufacturing and nonmanufacturing establishments which supply employment data to the Bureau of Labor Statistics.

As the Bureau's survey does not cover all establishments in an industry and furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ended September 15, 1942 [1]

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered [2]	Number reporting increases	Total number covered [2]	Number receiving increases	
All manufacturing	34,790	1,468	9,100,600	710,229	7.4
Durable goods	13,570	690	5,510,700	465,097	6.6
Nondurable goods	21,220	778	3,589,900	245,132	9.0
Iron and steel and their products not including machinery	2,760	206	1,266,400	216,775	6.0
Blast furnaces, steel works, and rolling mills	345	66	585,800	181,449	5.8
Bolts, nuts, washers, and rivets	65	8	18,600	3,848	7.7
Forgings, iron and steel	105	6	25,900	1,131	7.1
Cutlery (not including silver and plated cutlery) and edge tools	110	9	15,500	1,010	6.9
Hardware	155	8	41,500	1,053	6.7
Plumbers' supplies	110	3	17,500	534	9.4
Stamped and enameled ware	295	18	51,000	6,123	7.3
Steam and hot-water heating apparatus and steam fittings	115	5	48,200	2,142	8.6
Stoves	250	10	33,900	1,206	9.0
Structural and ornamental metalwork	290	13	39,000	2,320	6.6
Tin cans and other tinware	140	6	28,900	1,617	8.9
Tools (not including edge tools, machine tools, files, and saws)	115	11	18,000	1,193	6.4
Wirework	175	11	21,800	1,550	9.9
Screw-machine products	100	8	31,000	2,859	7.1
Wire not made in rolling mills	55	10	26,200	4,726	6.8
Files and saws	25	3	9,500	1,661	8.2

[1] Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "all manufacturing," and in the various industry groups. No decreases reported.

[2] Approximate—based on previous month's sample.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ended September 15, 1942—Continued

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
Machinery, not including transportation equipment	4,165	279	1,562,100	214,821	7.1
Agricultural implements (including tractors)	115	5	67,000	13,080	5.1
Electrical machinery, apparatus, and supplies	630	61	[1]	83,483	6.2
Engines, turbines, water wheels, and windmills	95	8	[1]	64,813	7.3
Foundry and machine-shop products	2,390	135	480,800	24,911	8.7
Machine tools	160	13	[1]	6,827	8.0
Radios and phonographs	85	12	54,300	9,716	10.3
Textile machinery and parts	120	10	25,100	3,598	10.0
Machine-tool accessories	180	14	[1]	1,572	9.5
Pumps	110	7	36,600	3,135	9.6
Refrigerators and refrigerating apparatus	70	4	29,500	435	6.9
Metalworking machines	90	7	27,100	1,886	6.5
Transportation equipment	945	28	1,747,500	10,085	6.3
Aircraft	155	7	[1]	2,468	5.7
Automobiles	385	9	398,200	708	6.6
Shipbuilding	275	9	[1]	6,720	6.3
Nonferrous metals and their products	1,215	51	337,000	5,222	6.9
Brass, bronze, and copper products	400	21	[1]	862	7.9
Jewelry	195	11	13,200	579	7.6
Sheet-metal work	160	7	13,500	928	8.2
Lumber and allied products	2,865	86	359,800	12,137	6.8
Furniture	760	20	106,900	2,892	6.4
Lumber:					
Millwork	560	11	39,900	444	9.0
Sawmills	715	27	141,800	5,476	5.8
Wood turned and shaped	110	3	8,500	805	9.9
Wooden boxes, other than cigar	145	9	15,600	856	5.7
Mattresses and bedsprings	200	5	9,100	464	5.9
Stone, clay, and glass products	1,620	40	237,900	6,057	7.5
Brick, tile, and terra cotta	500	15	40,200	1,817	7.8
Cement	130	4	25,400	513	8.9
Glass	155	5	71,700	842	9.6
Pottery	130	4	34,900	695	6.0
Concrete products	115	3	3,400	58	13.9
Textiles and their products	7,040	310	1,414,100	160,120	10.2
Fabrics	3,475	273	1,013,800	154,596	10.2
Carpet and rugs	35	3	21,700	518	8.2
Cotton goods	825	159	454,400	119,251	10.2
Cotton small wares	130	6	16,700	1,650	9.2
Dyeing and finishing textiles	215	17	53,700	5,974	10.3
Hosiery	515	17	99,400	3,057	7.4
Knitted outerwear	215	4	18,600	1,041	6.1
Knitted underwear	140	4	42,400	2,229	9.1
Silk and rayon goods	465	29	79,500	12,569	11.8
Woolen and worsted goods	415	14	161,400	4,759	12.0
Textile bags	60	4	8,500	552	13.0
Cordage and twine	60	9	13,900	2,635	7.3
Housefurnishings, other	80	4	8,600	47	11.6
Wearing apparel	3,565	37	400,300	5,524	8.5
Clothing, men's	1,100	12	157,800	1,676	6.3
Clothing, women's	1,275	3	94,200	175	8.8
Leather and its manufactures	1,085	21	243,900	4,679	6.6
Boots and shoes	495	5	168,200	2,164	6.4
Leather	180	10	37,000	2,040	6.6
Boot and shoe cut stock and findings	130	3	10,200	93	7.8

[1] Included in group totals but not available for publication separately.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ended September 15, 1942—Continued

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
Food and kindred products	5,185	145	637,100	17,486	7.1
Baking	1,000	22	85,300	988	8.9
Beverages	610	5	47,900	156	7.4
Butter	305	6	7,000	335	12.7
Canning and preserving	1,065	27	177,900	4,127	6.6
Confectionery	265	14	40,300	1,081	8.1
Flour	330	16	15,700	1,454	7.5
Ice cream	265	6	10,800	223	7.7
Slaughtering and meat packing	335	13	155,100	5,646	5.8
Distilled and vinous liquors	85	5	14,800	431	10.8
Condensed and evaporated milk	105	4	8,900	191	9.7
Feeds, prepared	115	7	5,600	231	6.0
Paper and printing	3,945	79	387,000	6,212	6.6
Boxes, paper	670	16	45,800	1,022	7.8
Paper and pulp	435	24	134,100	3,344	6.1
Printing and publishing:					
Book and job	1,480	12	78,600	346	8.3
Newspapers and periodicals	715	9	58,600	308	5.2
Lithographing	95	4	8,300	149	5.8
Chemical, petroleum, and coal products	2,445	171	479,200	44,305	6.3
Petroleum refining	180	45	81,600	22,742	5.2
Chemicals	280	19	94,700	3,221	6.1
Cottonseed—oil, cake, and meal	160	5	4,400	317	12.9
Druggists' preparations	100	5	18,300	406	7.8
Explosives	60	5	[1]	2,281	11.0
Fertilizers	330	19	12,600	933	8.2
Paints and varnishes	490	25	22,800	632	9.4
Rayon and allied products	30	3	43,300	4,694	8.3
Soap	90	5	15,000	2,019	5.2
Compressed and liquefied gases	80	7	3,200	132	6.3
Coke-oven products	35	3	11,300	3,674	5.7
Paving materials	25	3	900	139	5.4
Roofing materials	30	3	5,100	192	4.2
Patent and proprietary medicines	110	3	5,200	256	6.8
Rubber products	275	7	133,700	3,350	6.4
Rubber goods, other than footwear and tires	215	7	52,500	3,350	6.4
Miscellaneous	1,030	43	222,230	8,665	7.8
Fabricated plastic and wood-pulp products	80	7	20,100	1,275	8.4
Instruments—professional, scientific, and commercial	85	4	[1]	1,034	5.1
Sporting and athletic goods	50	3	6,500	431	5.6
Surgical and orthopedic appliances	50	4	11,600	2,840	9.4
Nonmanufacturing (except building construction)	87,740	439	3,019,800	37,781	6.2
Metalliferous mining	480	3	85,600	86	7.1
Quarrying and nonmetallic mining	1,280	22	49,200	1,794	5.6
Crude petroleum	540	64	36,100	8,537	5.2
Public utilities:					
Electric light and power	2,680	25	220,900	13,529	5.1
Street railways and busses	350	8	137,900	6,888	7.4
Trade:					
Wholesale	14,410	153	337,600	2,322	8.3
Retail	47,870	145	972,900	1,896	9.2
Hotels	1,750	13	136,700	1,168	8.7
Laundries	1,260	9	90,900	595	10.1
Dyeing and cleaning	770	11	19,300	228	6.9

[1] Included in group totals but not available for publication separately.

EARNINGS OF SMALL FARMERS IN PUERTO RICO

LIVING conditions and incomes of 3,069 families of small farmers operating tracts of land of 5 to 34 cuerdas [1] in Puerto Rico were the subject of a recent survey [2] which was one of a series of studies on

[1] Cuerda=0.97 acre.

[2] Living conditions among small farmers in Puerto Rico, by Manuel A. Perez. San Juan, Department of Agriculture and Commerce, 1942. (Research bulletins on agriculture and livestock, Bulletin No. 2.)

health and socio-economic conditions initiated in 1936 by the Health Division of the Puerto Rico Reconstruction Division. For the study the farms were classified according to the principal crop or combinations of crops—namely, sugarcane, tobacco, coffee, minor crops, tobacco and minor crops, coffee and minor crops, and sugarcane and minor crops—and were representative of small-scale farming in the Island. In nearly three-fourths of the farms, minor crops were responsible for the principal or a substantial part (one-third or more) of the annual cash income. Nine of the farms visited were leased; all the others were operated by their owners.

A total of 6,437 persons worked on the farms, of whom 3,948 (61.3 percent) were members of the households. The proportions of the employed laborers and members of the households were found to vary considerably on the different types of farms. The largest proportion of paid laborers—70.3 percent—was found on the sugarcane farms, while on the tobacco farms and on those raising sugarcane and minor crops nearly 50 percent of the workers were paid laborers. The smallest proportion of paid workers was found on the farms growing minor crops only.

Wage Rates

Daily wage rates were obtained for the 1,163 farms on which paid laborers were employed. The data show that 16.2 percent of the hired workers were paid less than 50 cents a day; 44.2 percent were paid a rate of 50 to 74 cents; and 39.6 percent had a daily wage rate of 75 cents to $1 or more. The average daily wage rate on the different types of farms was as follows: Sugarcane, 82 cents; sugarcane and minor crops, 80 cents; minor crops, 60 cents; coffee, 54 cents; tobacco and minor crops and coffee and minor crops, 53 cents; and tobacco, 48 cents. The average daily rate for all farms combined was 66 cents.

The following table shows the percentage of workers in the different wage groups, by type of farm:

TABLE 1.—*Daily Wage Rates Paid by Puerto Rican Farmers, by Type of Farm*

Type of farm	Number of farms	Number of workers	Percent of workers receiving daily wage rates of—			
			Under 50 cents	50–74 cents	75–99 cents	$1 or over
All types	1,163	2,489	16.2	44.2	21.3	18.3
Sugarcane	313	897	2.0	17.7	36.1	44.2
Tobacco	132	409	35.0	59.4	5.6	
Coffee	48	80	23.8	67.5	6.2	2.5
Minor crops	165	165	14.5	54.6	24.8	6.1
Tobacco and minor crops	316	618	24.3	64.2	11.0	.5
Coffee and minor crops	122	193	24.9	62.2	6.7	6.2
Sugarcane and minor crops	67	127	1.6	27.6	45.6	25.2

Family Incomes

The data on incomes included wages or salaries such as renumeration of rural school-teachers or other low-salaried employees who were members of the families studied, and pay received on a piece-

work basis or from odd jobs. The value of meals, especially the noon meal which is frequently given to workers on tobacco and coffee farms, was not included as earnings in their wages. The income from farm products sold was based on the actual value of these products in the market for the last crop, that is, in 1937, except in the case of coffee farms for which the income was computed on the basis of the prices for the 1936 crop. The value of eggs, poultry, pigs, vegetables, etc., sold or consumed was computed on the basis of current market prices, and the average income from these sources was estimated for each family. Income data were secured for the 4 weeks preceding the date of the interview, and the average weekly income was computed from these figures.

The average weekly family income for all families combined was $9.86. Average incomes for the different types of farms ranged from $7.53 per week on minor-crop farms to $16.20 on sugarcane farms. Wages earned when working off the farm accounted for one-fourth of the total weekly income of all families combined, and farm products consumed represented about one-fifth of the weekly income. In general, wages formed a higher percentage of average family income on the smaller farms where minor crops were the principal or an important source of income, while the lowest percentage of weekly income from wages was on the sugarcane farms, the tobacco farms, and the farms raising tobacco and minor crops.

The following table shows the average weekly incomes of 3,069 farm families, from various sources, by type of farm.

TABLE 2.—*Average Weekly Income of Puerto Rican Farm Families, by Type of Farm*

Type of farm	Number of families	Income from all sources		Average income per family from—				
		Total	Average per family	Wages	Products consumed	Product sold	Operation of business, and rent from properties	Pensions, and help from relatives
All types	3,069	$30,247.83	$9.86	$2.49	$1.95	$4.27	$0.80	$0.34
Sugarcane	394	6,384.19	16.20	2.88	2.03	9.48	1.60	.24
Tobacco	249	2,141.01	8.60	1.49	1.94	4.29	.62	.27
Coffee	160	1,610.94	10.07	2.48	1.42	3.81	1.86	.50
Minor crops	844	6,357.58	7.53	2.76	1.72	2.00	.64	.41
Tobacco and minor crops	797	7,627.08	9.57	1.87	2.38	4.33	.73	.26
Coffee and minor crops	516	4,543.48	8.80	2.64	1.70	3.66	.38	.42
Sugarcane and minor crops	109	1,583.55	14.53	5.24	2.41	6.20	.44	.23

Use and Sources of Credit

The total amount of credit used for production expenses by all the farms covered in the survey amounted to about $202,000, of which about 84 percent was used by the sugarcane farms, the tobacco and minor crop farms, and the tobacco farms. More than one-fourth of the farms used no credit of any kind, and the farmers stated that they operated these farms with their own resources. Merchants were the principal source of credit, especially for tobacco farms; while sugar centrals were the main sources of credit for the sugarcane farms and those producing sugarcane and minor crops. Banks were the source

of credit for less than 1 percent of the total number obtaining credit. The proportion of farmers who reported they were unable to obtain credit was especially high for the coffee farms and those raising coffee and minor crops.

LONGER WORKING DAY AUTHORIZED IN BRAZIL [1]

THE 10-hour day may be permitted in Brazilian public-service enterprises or in those which are concerned with production or national defense, upon authorization by the Minister of Labor, Industry, and Commerce. This was provided by decree-law No. 4639 of August 31, 1942, effective upon date of publication in the Diario Oficial. Work in excess of 8 hours is to be paid for at a rate not less than time and one-fifth. In unhealthful industries, authorizations issued for extension of hours up to a maximum of 10 hours must be preceded by a hearing before the industrial-hygiene authorities.

Working hours may exceed the limit fixed in this legislation in case of urgent necessity, either by reason of force majeure or in order to carry out or complete work which otherwise would result in loss. For overtime worked in case of force majeure, not less than the regular rate must be paid and in other cases not less than time and a quarter. Unless otherwise fixed by law, the number of hours worked shall not exceed 12 per day.

In the case of public-service enterprises or those concerned with production and the national defense, continuous work may be established upon authorization by the Ministry of Labor, Industry, and Commerce, but the employees must be assured their weekly rest through shift rotation. The general hours provisions established by decree-law No. 2308 of June 13, 1940, are to continue in force, except where they conflict with this legislation.

WAGES IN SWITZERLAND IN 1941

AVERAGE daily and hourly earnings in Switzerland were higher in 1941 than in 1940, the increase being, in general, more marked among workers in the lower-paid groups. The annual report of wages in 17 industries, published by the Federal Bureau of Industry, Arts and Trades, and Labor,[2] is based on data obtained from workers injured in industrial accidents, as to the actual wages and supplementary allowances received by them at the time of the accident. The reports for 1941 covered 96,408 workers, of whom 79,455 reported hourly earnings and 16,953 daily earnings, or weekly, monthly, or annual earnings which were converted to a daily basis.

The increases in hourly earnings in 1941 as compared with 1940 were 4.4 percent for foremen and master workmen, 7.1 percent for skilled and semiskilled workers, and 10.2 percent for unskilled workers. Increases in daily earnings of these groups were, respectively, 2.2, 5.7, and 8.0 percent. Hourly and daily earnings of women increased 8.8 and 9.9 percent, respectively, and of young persons 18.2 and 15.7 percent. The small amount of increase noted for foremen and master

[1] Data are from report of M. Victor Saadeh, clerk, United States Embassy, Rio de Janeiro; and International Labor Office (Montreal), Legislative Series, 1940–Brazil 5.

[2] Switzerland, Département Fédéral de l'Économie Publique, La Vie Économique (Berne), July 1942.

workmen is due to the fact that since the cost-of-living adjustments have been in operation the greater number of those workers who sustain accidents earn more than the maximum (21 francs per day) which is taken into consideration for insurance, and therefore the higher-paid workers' earnings, in excess of 21 francs, are not included in the statistical analysis.

The movement of wages since the war has been affected by changes in the composition of the working force resulting from the call to active service and other war services. Although it is not possible from available information to measure the extent of the changes, it is considered that the earnings of certain groups of workers may have been affected adversely.

The purchasing power of wages based on the official cost-of-living index was lower for men and adult women in 1941 than in 1940. As a result of a 15.3-percent increase in the cost-of-living index the average real hourly wages of adult workers were reduced by 4.4 to 9.5 percent and the average real daily wages of these workers (exclusive of foremen and master workmen) by from 4.7 to 8.3 percent. Among young persons there was a slight increase in real wages.

Since 1939, the average hourly wages of adult workers have increased by 8.0 to 13.9 percent and the daily earnings, with the exception of foremen and master workmen, by 9.3 to 12.2 percent. Among young persons the increases have been from 25.1 to 32.2 percent. Since the cost of living has increased 26.0 percent in this period, the real hourly wages of adult workers have fallen by 9.6 to 14.3 percent, and real daily earnings by 11.0 to 13.3 percent. The real hourly earnings of young people, on the other hand, have increased by 4.9 percent while their real daily earnings have remained at the same level.

The following table shows average daily and hourly earnings reported for the different classes of workers in the various industries in 1941.

Average Daily and Hourly Earnings of Workers in Specified Industries in Switzerland, 1941

[Average exchange rate of franc in June 1941, the last month for which quotations were available = 23.21 cents]

Industry	Average daily earnings (in francs) of—			Average hourly earnings (in francs) of—		
	Skilled and semi-skilled workers	Unskilled workers	Women	Skilled and semi-skilled workers	Unskilled workers	Women
Average all occupations	13.34	10.75	6.97	1.51	1.21	0.80
Metals and machines	12.38	10.66	6.12	1.55	1.25	.84
Building	13.98	12.14	.....	1.56	1.24	.....
Wood	10.07	8.74	.....	1.37	1.09	.71
Textiles	13.31	9.84	6.98	1.25	1.08	.79
Watches	14.32	.....	7.30	1.53	1.22	.90
Stone and earth	12.30	9.32	.....	1.37	1.18	.72
Shoes	.....	.....	.....	1.36	1.12	.86
Paper	14.25	.....	6.57	1.42	1.10	.71
Graphic arts	16.74	10.27	6.32	1.89	1.23	.79
Chemicals	15.18	10.54	.....	1.58	1.37	.78
Food, drink, and tobacco	14.72	12.24	6.92	1.49	1.31	.76
Conveyances	11.71	10.40	.....	.....	1.31	.....
Commercial establishments	13.81	11.70	7.99	1.41	1.25	.78
Electric light and power	16.26	14.55	.....	1.58	1.22	.....
Gas and water	17.12	14.61	.....	1.74	1.54	.....
Mining and quarrying	12.37	10.28	.....	1.36	1.12	.....
Forestry	10.01	9.00	.....	1.09	1.07	.....

Wage and Hour Regulation

WAGE DETERMINATION IN TOBACCO INDUSTRY [1]

ON AND after December 4, 1942, the minimum rate of pay became 40 cents an hour for workers engaged in the manufacture or supply of tobacco products under Government contracts. The industry is defined to include the manufacture of cigarettes, of chewing and smoking tobaccos, and of snuff, but to exclude the manufacture of cigars. Previously 40 cents had become the hourly minimum by wage order of the Administrator of the Fair Labor Standards Act.[2] In effect, the Administrator's order had established 40 cents as the prevailing minimum hourly wage in the tobacco industry, and therefore the lower rate of pay provided by an earlier determination [3] under the Public Contracts Act was superseded by the present rate. Learners may be employed at subminimum rates.

40-CENT RATE FOR BUTTON AND BUCKLE INDUSTRY [4]

BEGINNING October 19, 1942, a minimum hourly rate of 40 cents became effective in the button and buckle manufacturing industry, by order of the Administrator of the Fair Labor Standards Act. As defined in the wage order the industry consists of the manufacture of buttons, buckles, and slides, and blanks and parts for such articles from any material except metal, for use on apparel, but not including the manufacture of products covered by any definition of an industry in any previous order issued under the wage and hour law.

PROPOSED FAIR-WAGES RESOLUTION IN GREAT BRITAIN [5]

AFTER consultation with the general council of the Trades Union Congress and the British Employers' Confederation, the Government of Great Britain has issued a "white paper" (Cmd. 6399) containing the draft of a Fair Wages Resolution to be submitted to Parliament at the close of the present war. It has long been recognized that the existing Fair Wages Resolution of the House of Commons—passed in 1909—is no longer appropriate, owing to changed conditions, and the question of a new resolution has been under consideration for some time.

[1] U. S. Department of Labor, Division of Public Contracts, press release 528-42, November 4, 1942.
[2] See Monthly Labor Review, issue of September 1942 (p. 594).
[3] See Monthly Labor Review, issue of October 1940 (p. 815).
[4] Federal Register, September 26, 1942 (p. 7586).
[5] From report of E. Mabel Hodgkinson, Office of United States Commercial Attaché, London.

The most important changes incorporated in the draft resolution deal with the standard of fair wages and the requirements that must be met by contractors in dealing with labor. Practices of "good employers" in a particular district would no longer be the sole standard in establishing fair wages. Employers would be required to observe the standards fixed for the trade or industry in the district by representative joint machinery of negotiation or by arbitration. A contractor would be bound to observe "fair" conditions of labor as well as "fair" wages, and apply them to all persons in his employ in every factory, workshop, or place where contracts are executed. Every new contractor would be required to furnish contracting departments with assurance that to the best of his knowledge and belief he has complied with the general conditions of the resolution for at least the previous 3 months. Under the 1909 resolution, the Minister of the contracting department affected had to decide, if called upon, whether or not fair wages were being paid; under the proposed resolution any such questions would be reported to the Ministry of Labor and National Service, and if not disposed of by negotiation would be referred to arbitration. The contractor would be obliged to recognize the freedom of his employees to be members of trade-unions.

No immediate need to amend the Fair Wages Resolution exists, as the position of Government contractors with regard to wages and conditions of employment is governed by the Wartime Conditions of Employment and National Arbitration Order, 1940 (issued under the Emergency Powers (Defense) Act of 1939). The Government, in the introduction to the resolution, states that the resolution is now presented merely as a statement of intention. It is realized that before asking Parliament to consider the resolution, "it is desirable to have further experience of the administration of the order and to allow opportunity for considering what changes may be necessary in view of any future development with regard to the enforcement of industrial agreements."

The form of the resolution will be as follows unless any amendments are mutually agreed upon with organized employers and employees in the meantime:

Draft Fair Wages Resolution

1. (*a*) The contractor shall pay rates of wages and observe hours and conditions of labor not less favorable than those established for the trade or industry in the district where the work is carried out by machinery of negotiation or arbitration to which the parties are organizations of employers and trade-unions representative respectively of substantial proportions of the employers and workers engaged in the trade or industry in the district.

(*b*) In the absence of any rates of wages, hours or conditions of labor so established the contractor shall pay rates of wages and observe hours and conditions of labor which are not less favorable than the general level of wages, hours and conditions observed by other employers whose general circumstances in the trade or industry in which the contractor is engaged are similar.

2. The contractor shall in respect of all persons employed by him (whether in execution of the contract or otherwise) in every factory, workshop or place occupied or used by him for the execution of the contract comply with the general conditions required by this resolution. Before a contractor is placed upon a department's list of firms to be invited to tender, the department shall obtain from him an assurance that to the best of his knowledge and belief he has complied with the general conditions required by this resolution for at least the previous three months.

3. In the event of any question arising as to whether the requirements of this resolution are being observed, the question shall, if not otherwise disposed of, be referred by the Minister of Labor and National Service to an independent tribunal for decision.

4. The contractor shall recognize the freedom of his workpeople to be members of trade-unions.

5. The contractor shall at all times during the continuance of a contract display, for the information of his workpeople, in every factory, workshop or place occupied or used by him for the execution of the contract a copy of this resolution.

6. The contractor shall be responsible for the observance of this resolution by subcontractors employed in the execution of the contract, and shall if required, notify the department of the names and addresses of all such subcontractors.

LABOR TURN-OVER IN MANUFACTURING, SEPTEMBER 1942

INCREASED quits and military separations raised the total separation rate to a new high of 8.10 per 100 workers in September. Since the beginning of the year the quit rate has more than doubled, reaching 5.19 in September as compared with 2.36 in January and 4.31 in August. Although students returning to school always raise the quit rate in September, many of the voluntary employee separations continue to be caused by workers shifting to higher-paid and otherwise more desirable jobs in the same or other industries. Miscellaneous separations increased from 0.25 per 100 workers in September 1941 to 1.46 in August 1942 and 1.79 in September.

The quit rates in September were higher than in August in each of the 11 selected war industries and in all but 2 of the 42 industries for which data are computed. The quit rate decreased only in lighting equipment and in sawmills, which dropped to 8.36, after reaching a peak of 10.12 in August. Industries with the highest quit rates in September included planing mills (9.50), stamped and enameled ware (8.82), furniture (8.77), slaughtering and meat packing (8.75), paper boxes (8.15), rubber boots and shoes (7.97), flour (7.92), paper and pulp (7.65), dyeing and finishing textiles (7.58), and radios and phonographs (7.50).

In order to replace separated employees and at the same time expand their net working force, employers in many industries were forced to recruit large numbers of workers. Total accession rates in excess of 12 per 100 workers were reported for rubber tires (15.69), stoves (14.85), rubber boots and shoes (14.42), slaughtering and meat packing (14.40), radios and phonographs (13.28), furniture (13.10), and flour (12.13).

These figures are based on returns from approximately 8,500 manufacturing establishments employing more than 5,000,000 wage earners. The industry classifications shown relate to peace-time production items and therefore those plants which have been converted to the war effort are being continued under the former industrial classification.

LABOR TURN-OVER RATES
IN REPRESENTATIVE FACTORIES
PER 100 ON THE PAY ROLL
RATE
12
10
8
6
4
2
0
TOTAL ACCESSION
TOTAL SEPARATION
DISCHARGE
QUIT
LAY-OFF
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 1.—*Monthly Labor Turn-Over Rates of Factory Workers in Representative Establishments in 135 Industries* [1]

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December
Separations:												
Quits:												
1942	2.36	2.41	3.02	3.59	3.77	3.85	4.02	4.31	5.19			
1941	1.31	1.33	1.70	2.08	2.20	2.06	2.25	2.46	2.81	2.11	1.57	1.75
Discharges:												
1942	.30	.29	.33	.35	.38	.38	.43	.42	.44			
1941	.18	.19	.21	.25	.24	.26	29	.30	.31	.28	.24	.29
Lay-offs: [2]												
1942	1.61	1.39	1.19	1.31	1.43	1.21	1.05	.87	.68			
1941	1.61	1.20	1.06	1.19	1.08	1.03	1.40	1.13	1.16	1.41	1.44	2.15
Miscellaneous separations: [3]												
1942	.83	.73	.82	.87	.96	1.02	1.23	1.46	1.79			
1941	.31	.43	.43	.37	.84	.36	.30	.25	.25	.33	.26	.52
Total:												
1942	5.10	4.82	5.36	6.12	6.54	6.46	6.73	7.06	8.10			
1941	3.41	3.15	3.40	3.89	3.86	3.71	4.24	4.14	4.53	4.13	3.51	4.71
Accessions:												
Rehirings:												
1942	1.41	1.03	1.18	1.11	1.07	1.12	1.09	1.12	1.08			
1941	1.45	1.08	1.24	1.04	.92	.90	1.04	1.11	.87	.86	.79	.94
New hirings:												
1942	5.46	4.99	5.81	6.01	6.22	7.13	7.19	6.78	8.07			
1941	4.09	3.84	4.38	5.00	5.03	5.41	4.96	4.32	4.29	4.29	3.12	3.82
Total:												
1942	6.87	6.02	6.99	7.12	7.29	8.25	8.28	7.90	9.15			
1941	5.54	4.92	5.62	6.04	5.95	6.31	6.00	5.43	5.16	4.87	3.91	4.76

[1] Turn-over rates are not comparable to the employment and pay-roll reports issued monthly by the Bureau of Labor Statistics as the former are based on data for the entire month, while the latter refer only to the pay period ending nearest the middle of the month. In addition, certain seasonal industries, such as canning and preserving, are not covered by the labor turn-over survey and the sample is not as extensive as that of the employment survey, which includes a larger number of small plants.
[2] Including temporary, indeterminate, and permanent lay-offs.
[3] Military separations included.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]

Industry	Date	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation [2]	Total separation	Rehiring	New hiring	Total accession
Agricultural implements	Sept. 1942	3.36	0.30	0.69	1.60	5.95	1.78	4.92	6.70
	Aug. 1942	2.94	.27	2.13	1.25	6.59	1.52	4.56	6.08
	Sept. 1941	1.72	.27	.44	.22	2.65	.88	2.72	3.60
Automobiles and bodies	Sept. 1942	2.86	.25	.80	1.42	5.33	1.66	6.55	8.21
	Aug. 1942	2.59	.25	.72	1.42	4.98	1.66	5.96	7.62
	Sept. 1941	2.45	.14	3.04	.31	5.94	3.24	2.28	5.52
Automobile parts and equipment	Sept. 1942	5.09	.75	.84	1.50	8.18	1.26	9.09	10.35
	Aug. 1942	3.58	.58	.75	1.27	6.18	2.14	6.60	8.74
	Sept. 1941	2.66	.35	2.48	.22	5.71	1.99	6.12	8.11
Blast furnaces, steel works and rolling mills	Sept. 1942	3.60	.19	.42	1.77	5.98	.57	4.50	5.07
	Aug. 1942	3.34	.23	.51	1.73	5.81	.52	4.58	5.10
	Sept. 1941	2.03	.11	.38	.31	2.83	.34	2.05	2.39
Boots and shoes	Sept. 1942	5.81	.25	.64	1.15	7.85	1.26	4.95	6.21
	Aug. 1942	5.25	.27	1.00	1.04	7.56	1.05	4.52	5.57
	Sept. 1941	2.29	.25	1.35	.20	4.09	.82	2.53	3.35
Boxes, paper	Sept. 1942	8.15	.35	.73	1.51	10.74	1.41	8.83	10.24
	Aug. 1942	6.43	.42	1.31	1.15	9.31	.96	6.50	7.46
	Sept. 1941	3.55	.45	.92	.19	5.11	.49	5.69	6.18
Brick, tile, and terra cotta	Sept. 1942	6.97	.34	1.33	1.26	9.90	.94	6.83	7.77
	Aug. 1942	6.34	.50	1.26	1.08	9.18	1.21	6.42	7.63
	Sept. 1941	2.85	.34	1.93	.16	5.28	1.08	3.82	4.90

[1] No individual industry data shown unless reports cover at least 25 percent of industrial employment.
[2] Military separations included.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries*—Continued

Industry	Date	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation	Total separation	Rehiring	New hiring	Total accession
Cast-iron pipe	Sept. 1942	2.89	0.36	0.09	1.33	4.67	1.87	2.80	4.67
	Aug. 1942	2.56	.33	.06	1.27	4.22	1.09	3.87	4.96
	Sept. 1941	2.37	.39	.24	.23	3.23	.80	3.56	4.36
Cement	Sept. 1942	4.70	.32	.20	1.00	6.22	.49	4.96	5.45
	Aug. 1942	4.07	.51	.55	1.02	6.15	.40	6.76	7.16
	Sept. 1941	1.86	.19	1.17	.15	3.37	.47	2.37	2.84
Chemicals	Sept. 1942	5.11	.41	.39	2.12	8.03	.54	6.90	7.44
	Aug. 1942	3.82	.43	.38	1.64	6.27	.63	5.87	6.50
	Sept. 1941	2.60	.24	.70	.28	3.82	.16	3.76	3.92
Cigars and cigarettes	Sept. 1942	7.16	.27	.55	.45	8.43	1.34	7.42	8.76
	Aug. 1942	5.97	.20	.56	.36	7.09	1.91	6.03	7.94
	Sept. 1941	3.49	.11	1.45	.12	5.17	1.10	4.54	5.64
Cotton manufacturing	Sept. 1942	6.50	.51	.52	1.26	8.79	1.52	6.88	8.40
	Aug. 1942	5.82	.42	.68	1.00	7.92	1.71	6.16	7.87
	Sept. 1941	4.08	.35	.65	.25	5.33	1.30	4.73	6.03
Dyeing and finishing textiles	Sept. 1942	7.58	.99	.93	1.48	10.98	.95	9.69	10.64
	Aug. 1942	5.99	.87	.42	1.18	8.46	.96	6.77	7.73
	Sept. 1941	3.71	.27	.72	.22	4.92	.89	3.80	4.69
Flour	Sept. 1942	7.92	.34	.59	2.02	10.87	1.33	10.80	12.13
	Aug. 1942	7.89	.36	1.18	1.12	10.55	1.04	8.94	9.98
	Sept. 1941	3.16	.68	1.18	.14	5.16	.54	5.67	6.21
Foundries and machine shops	Sept. 1942	5.51	.61	.43	1.80	8.35	.54	9.18	9.72
	Aug. 1942	4.84	.54	.43	1.41	7.22	.48	7.86	8.34
	Sept. 1941	2.96	.40	1.07	.20	4.63	.37	4.99	5.36
Furniture	Sept. 1942	8.77	.80	1.60	1.82	12.99	1.28	11.82	13.10
	Aug. 1942	7.70	.72	2.29	1.34	12.05	1.17	10.10	11.27
	Sept. 1941	4.28	.47	1.34	.28	6.37	.66	5.76	6.42
Glass	Sept. 1942	4.78	.30	.99	1.68	7.75	1.01	6.79	7.80
	Aug. 1942	4.61	.22	1.62	1.40	7.85	1.49	7.12	8.61
	Sept. 1941	2.53	.17	1.65	.28	4.63	1.54	3.12	4.66
Hardware	Sept. 1942	6.03	.30	.52	1.43	8.28	.73	7.54	8.27
	Aug. 1942	5.36	.51	1.06	.96	7.89	.89	5.16	6.05
	Sept. 1941	3.98	.44	.69	.25	5.36	.35	5.32	5.67
Knit goods	Sept. 1942	5.53	.22	.52	.55	6.82	.69	5.36	6.05
	Aug. 1942	4.60	.25	.68	.53	6.06	.58	5.16	5.74
	Sept. 1941	2.77	.26	2.50	.11	5.64	1.06	2.80	3.86
Leather goods	Sept. 1942	4.78	.18	.70	1.54	7.20	.77	4.86	5.63
	Aug. 1942	3.32	.19	.67	1.12	5.30	.99	3.60	4.59
	Sept. 1941	1.47	.15	.81	.24	2.67	.57	3.14	3.71
Lighting equipment	Sept. 1942	4.30	.55	2.08	1.61	8.54	2.25	5.62	7.87
	Aug. 1942	4.61	.31	6.17	1.23	12.32	3.50	3.15	6.65
	Sept. 1941	3.27	.19	.60	.33	4.39	.17	3.30	3.47
Men's clothing	Sept. 1942	4.93	.28	.85	.60	6.66	1.24	5.20	6.44
	Aug. 1942	4.28	.28	1.62	.28	6.46	1.52	4.37	5.89
	Sept. 1941	2.06	.22	1.66	.09	4.03	.70	2.74	3.44
Paints and varnishes	Sept. 1942	5.66	.87	.39	1.70	8.62	.30	8.00	8.30
	Aug. 1942	4.32	.43	.69	1.21	6.65	.56	5.84	6.40
	Sept. 1941	2.38	.26	1.21	.30	4.15	.26	3.06	3.32
Paper and pulp	Sept. 1942	7.65	.37	.43	1.91	10.36	.73	8.05	8.78
	Aug. 1942	5.66	.36	.59	1.57	8.18	.56	5.46	6.02
	Sept. 1941	2.57	.30	1.05	.27	4.19	.44	3.03	3.47
Petroleum refining	Sept. 1942	2.41	.28	.49	1.55	4.73	.20	3.53	3.73
	Aug. 1942	2.08	.19	.54	1.08	3.89	.40	3.24	3.64
	Sept. 1941	1.55	.08	.81	.21	2.65	.33	2.66	2.99
Planing mills	Sept. 1942	9.50	.72	1.71	1.56	13.49	.96	10.46	11.42
	Aug. 1942	9.28	.75	2.16	1.71	13.90	1.34	14.46	15.80
	Sept. 1941	4.84	.62	.91	.37	6.74	.74	6.84	7.58
Printing:									
Book and job	Sept. 1942	5.24	.22	2.11	.95	8.52	1.69	5.79	7.48
	Aug. 1942	3.37	.17	2.75	.95	7.24	1.58	4.43	6.01
	Sept. 1941	2.92	.51	2.85	.14	6.42	1.59	5.38	6.97
Newspapers and periodicals	Sept. 1942	1.39	.24	.46	.98	3.07	.83	3.37	4.20
	Aug. 1942	1.37	.21	.97	.78	3.33	.51	1.73	2.24
	Sept. 1941	.75	.05	.95	.14	1.89	1.08	2.12	3.20
Radios and phonographs	Sept. 1942	7.50	.45	.45	1.19	9.59	.94	12.34	13.28
	Aug. 1942	4.93	.52	.68	.95	7.08	1.18	9.23	10.41
	Sept. 1941	3.38	.26	.71	.16	4.51	1.05	7.63	8.68
Rayon and allied products	Sept. 1942	2.06	.20	.59	1.53	4.38	.20	2.90	3.10
	Aug. 1942	1.85	.34	.84	.91	3.94	.20	2.83	3.03
	Sept. 1941	1.33	.22	.80	.39	2.74	.29	1.55	1.84
Rubber boots and shoes	Sept. 1942	7.97	.20	.14	1.31	9.62	1.91	12.51	14.42
	Aug. 1942	7.09	.27	.38	1.07	8.81	1.71	11.43	13.14
	Sept. 1941	3.33	.15	1.00	.62	5.10	1.12	3.85	4.97

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries*—Continued

Industry	Date	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation[2]	Total separation	Rehiring	New hiring	Total accession
Rubber tires	Sept. 1942	5.51	0.24	0.26	1.41	7.42	1.18	14.51	15.69
	Aug. 1942	3.64	.15	.12	1.58	5.49	.48	11.38	11.86
	Sept. 1941	2.16	.13	1.17	.22	3.68	.50	2.03	2.53
Sawmills	Sept. 1942	8.36	.40	1.12	1.93	11.81	1.48	8.03	9.51
	Aug. 1942	10.12	.44	.72	1.85	13.13	1.48	10.25	11.73
	Sept. 1941	4.62	.48	2.23	.34	7.67	1.18	5.42	6.60
Silk and rayon goods	Sept. 1942	6.52	.48	1.57	1.86	10.43	1.15	6.30	7.45
	Aug. 1942	5.52	.34	1.37	.90	8.13	1.46	5.08	6.54
	Sept. 1941	3.39	.17	3.11	.07	6.74	1.21	3.00	4.21
Slaughtering and meat packing	Sept. 1942	8.75	.53	2.48	2.27	14.03	2.92	11.48	14.40
	Aug. 1942	7.16	.48	4.10	2.19	13.93	3.18	8.85	12.03
	Sept. 1941	2.24	.29	4.28	.39	7.20	3.71	3.88	7.59
Stamped and enameled ware	Sept. 1942	8.82	.56	1.15	1.78	12.31	.75	10.25	11.00
	Aug. 1942	7.18	.76	2.59	1.51	12.04	.81	8.02	8.83
	Sept. 1941	5.23	.57	2.21	.46	8.47	1.33	7.04	8.37
Steam and hot-water heating apparatus	Sept. 1942	3.37	.21	.14	1.88	5.60	.16	7.77	7.93
	Aug. 1942	2.43	.24	.53	1.56	4.76	.15	6.61	6.76
	Sept. 1941	3.23	.32	.77	.28	4.60	1.49	4.88	6.37
Stoves	Sept. 1942	5.62	.76	3.71	1.41	11.50	3.10	11.75	14.85
	Aug. 1942	3.67	.61	8.07	1.88	14.23	1.45	5.83	7.28
	Sept. 1941	4.34	.38	1.53	.38	6.63	.77	4.80	5.57
Structural and ornamental metal works	Sept. 1942	6.64	.64	.96	1.74	9.98	.71	10.97	11.68
	Aug. 1942	6.30	.85	.86	1.48	9.49	.79	11.02	11.81
	Sept. 1941	2.35	.24	.60	.19	3.38	.41	4.09	4.50
Textile machinery	Sept. 1942	4.33	.29	.37	1.80	6.79	.77	5.06	5.83
	Aug. 1942	3.06	.27	.26	1.41	5.00	.23	3.74	3.97
	Sept. 1941	3.73	.30	.30	.30	4.63	.30	4.60	4.90
Tools (not including edge tools, machine tools, files, and saws)	Sept. 1942	5.13	.47	.26	1.55	7.41	.49	6.80	7.29
	Aug. 1942	4.89	.44	.53	1.33	7.19	.19	5.64	5.83
	Sept. 1941	2.95	.17	.21	.07	3.50	.51	4.84	5.35
Woolen and worsted goods	Sept. 1942	5.30	.24	.98	1.55	8.07	1.89	4.84	6.73
	Aug. 1942	4.12	.23	.90	1.13	6.38	2.91	4.87	7.78
	Sept. 1941	2.99	.24	1.35	.27	4.85	1.13	3.41	4.54

In the following table are given the quit rates for strategic war industries for which the publication of turn-over data has been restricted.

TABLE 3.—*Monthly Quit Rates (Per 100 Employees) in Selected War Industries*

Industry	Quit rates		
	1942: September	1942: August	1941: September
Average for 11 selected war industries [1]	4.81	4.18	2.62
Aircraft	4.72	4.29	3.20
Aluminum	4.34	3.17	2.25
Brass, bronze, and copper products	5.65	4.53	2.81
Electrical machinery	3.60	2.76	2.54
Engines and turbines	2.13	1.53	2.00
Explosives	3.80	2.92	2.91
Firearms	4.16	4.11	3.63
Metal-working machinery [2]	3.87	3.41	2.76
Shipbuilding	6.66	5.77	3.00

[1] Includes blast furnaces, steel works, and rolling mills and foundries and machine shops as shown in table 2.
[2] Formerly shown as "machine tools."

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, OCTOBER 1942 [1]

CURTAILMENT of both public and private building in October 1942 resulted in a 58-percent drop in building-permit valuations as compared with last October. Reductions occurred in permit valuations for all 3 classes of construction: 70 percent for new nonresidential buildings; 55 percent for additions, alterations, and repairs; and 50 percent for new residential buildings.

The value of Federal contracts awarded was slightly higher in October than in September 1942, but lower private valuations caused an 11-percent decrease in total permit valuations. Contracts awarded for public war housing projects resulted in a 9-percent rise in new residential valuations, despite a 12-percent reduction in permit valuations for privately financed housing. Valuations for all new nonresidential construction declined 34 percent from September to October and the corresponding decrease in additions and repairs was 20 percent.

Comparison of October 1942 with October 1941 and September 1942

The volume of building construction in 2,263 identical cities with populations of 500 and over, which reported to the Bureau of Labor Statistics in September and October 1942 and October 1941, is summarized in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,263 Identical Cities, October 1942*

Class of construction	Number of buildings			Permit valuation		
	October 1942	Percent of change from—		October 1942 (in thousands of dollars)	Percent of change from—	
		September 1942	October 1941		September 1942	October 1941
All construction	52,210	−1.3	−36.4	97,570	−11.2	−58.2
New residential	13,551	+26.4	−46.0	56,037	+8.8	−49.7
New nonresidential	7,297	−13.9	−53.5	25,179	−33.6	−70.5
Additions, alterations, and repairs	31,362	−7.0	−24.2	16,354	−20.1	−55.3

[1] More detailed information by geographic divisions and population groups is contained in a separate mimeographed release entitled "Building Construction, October 1942," copies of which will be furnished upon request.

The number of new dwelling units for which permits were issued and the permit valuation of such new housekeeping residential construction in the 2,263 cities reporting in October 1942 are presented in table 2. Percentage changes between October 1942 and September 1942 and October 1941 are also shown.

TABLE 2.—*Number and Permit Valuation of New Dwelling Units in 2,263 Identical Cities, October 1942, by Source of Funds and Type of Dwelling*

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	October 1942 (in thousands of dollars)	Percent of change from—		October 1942 (in thousands of dollars)	Percent of change from—	
		September 1942	October 1941		September 1942	October 1941
All dwellings	16,115	+12.9	−43.5	54,968	+23.4	−50.2
Privately financed	10,144	−17.1	−60.1	33,628	−12.0	−66.0
1-family	7,447	−10.0	−64.2	26,120	−7.8	−69.7
2-family [1]	1,202	+2.0	−34.5	3,677	+15.4	−27.1
Multifamily [2]	1,495	−46.5	−46.7	3,831	−42.9	−50.9
Publicly financed	5,971	+193.3	+93.4	21,340	+237.8	+85.9

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Comparison of First 10 Months of 1941 and 1942

Permit valuations reported in the first 10 months of 1941 and 1942 are compared in table 3.

TABLE 3.—*Permit Valuation of Building Construction, by Class of Construction, First 10 Months of 1941 and 1942* [1]

Class of construction	Permit valuation		
	First 10 months of—		Percent of change
	1942 (in thousands of dollars)	1941 (in thousands of dollars)	
All construction	1,588,918	2,614,066	−39.2
New residential	713,430	1,295,780	−44.9
New nonresidential	648,413	993,532	−34.7
Additions, alterations, and repairs	227,075	324,754	−30.1

[1] Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.

The number and permit valuation of new dwelling units for which permits were issued in the first 10 months of 1942 are compared with similar data for the corresponding months of 1941 in table 4.

TABLE 4.—*Number and Permit Valuation of New Dwelling Units, by Source of Funds and Type of Dwelling, First 10 Months of 1941 and 1942* [1]

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	First 10 months of—		Percent of change	First 10 months of—		Percent of change
	1942	1941		1942 (in thousands of dollars)	1941 (in thousands of dollars)	
All dwellings	210,720	340,114	−38.0	700,382	1,281,999	−45.4
Privately financed	153,921	284,958	−46.0	511,250	1,095,371	−53.3
1-family	109,710	223,453	−50.9	390,566	923,601	−57.7
2-family [2]	13,986	18,794	−25.6	38,824	49,140	−21.0
Multifamily [3]	30,225	42,711	−29.2	81,860	122,630	−33.2
Publicly financed	56,799	55,156	+3.0	189,132	186,628	+1.3

[1] Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.

Construction From Public Funds, October 1942

The value of contracts awarded and force-account work started during September and October 1942 and October 1941 on all construction projects financed wholly or partially from Federal funds is shown in table 5. This table includes other types of construction as well as building construction, both inside and outside 2,263 reporting cities.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed From Federal Funds, in Specified Months.*

[Thousands of dollars]

Federal agency	Contracts awarded and force-account work started		
	October 1942 [1]	September 1942 [2]	October 1941 [2]
Total	302,044	781,235	276,453
War Public Works	0	1,641	0
Regular Federal appropriations [3]	258,493	733,825	253,424
Federal Public Housing Authority [4]	43,551	45,769	[5] 23,029

[1] Preliminary; subject to revision.
[2] Revised.
[3] Exclusive of contracts awarded for public housing.
[4] Includes contracts awarded for all public housing.
[5] Includes $8,197,568 for contracts awarded on USHA projects and $14,831,799 for contracts awarded from regular Federal appropriations.

The value of all contracts awarded for public buildings and highway construction to be financed wholly from State funds, as reported by the State Governments for September and October 1942 and October 1941, was as follows:

	Public buildings	*Highway construction*
October 1941	$1,388,198	$13,911,461
September 1942	679,367	6,817,408
October 1942	173,855	4,036,432

Coverage of Building-Permit Statistics

Building-permit data are collected by the Bureau of Labor Statistics each month from more than 2,500 places having a population of 500 or more in 1940, from which are selected those for cities which also reported in the preceding month and in the corresponding month of the previous year. In addition, the Bureau receives notifications of the value of construction contracts awarded by Federal and State governments. Federal and State building construction in the 2,263 reporting cities totaled $38,362,000 in October 1942, as contrasted with $36,494,000 in the previous month and $51,344,000 in October 1941.

The permit-valuation figures represent estimates of construction costs made by prospective private builders when applying for permits to build, and the value of contracts awarded by Federal or State governments. No land costs are included. Unless otherwise indicated, only building construction within the corporate limits of the reporting cities is included in the tabulations.

ESTIMATED CONSTRUCTION ACTIVITY IN THE UNITED STATES, 1941 AND 1942 [1]

WITH the building industry almost completely converted to a war footing, new construction activity in continental United States amounted to 4,497 million dollars during the third quarter of 1942 and is expected to total more than 14 billion dollars for the year. The third-quarter total of 4,497 million dollars represents an increase of 33 percent over the preceding quarter and a 34-percent gain over the third quarter of 1941.

The extent of conversion to war work is indicated by the relatively large portion of publicly financed construction as compared with both the preceding quarter and the same period in 1941. In the comparable period of 1941 public construction accounted for only 50 percent of the total volume as against 82 percent in the third quarter of 1942. Fourth-quarter activity is expected to decline to approximately 3,533 million dollars, with public and private construction decreasing at about the same rate.

Estimated New Construction Activity in Continental United States, 1941 and 1942, by Quarters [1]

[In millions of dollars]

Function and ownership	1941					1942				
	Total	1st quarter	2d quarter	3d quarter	4th quarter	Total	1st quarter	2d quarter	3d quarter	4th quarter [2]
Total new construction	11,025	2,084	2,726	3,337	2,878	14,042	2,643	3,369	4,497	3,533
Private construction	5,667	974	1,455	1,808	1,430	3,425	962	1,029	811	623
Residential (nonfarm)	2,881	508	740	902	731	1,491	468	473	295	255
Net nonresidential building	1,244	251	342	345	306	529	201	154	100	74
Commercial	436	86	104	131	115	162	77	58	19	8
Industrial	585	108	180	156	141	282	89	70	66	57
All other	273	65	70	73	65	132	46	39	29	18
Deduct nonresidential building by privately-owned utilities	50	8	12	15	15	47	11	13	14	9
Farm construction: [3]										
Operators' dwellings	300	30	75	135	60	251	46	80	75	50
Service buildings	415	41	104	187	83	406	66	115	125	100
Public-utility construction	827	144	194	239	250	748	181	207	216	144
Railroad	187	30	49	56	52	190	34	57	67	32
Street railway	20	3	5	6	6	19	3	6	7	3
Pipeline	65	12	8	18	27	54	14	8	17	15
Electric light and power	299	50	71	88	92	254	65	76	69	44
Gas	74	13	16	24	21	60	20	16	13	11
Telephone and telegraph	182	36	45	49	52	171	45	44	43	39
Public construction	5,358	1,110	1,271	1,529	1,448	10,617	1,681	2,340	3,686	2,910
Highway	999	140	264	347	248	659	129	195	175	160
Residential [4]	429	86	109	121	113	528	78	101	173	176
Nonresidential	1,500	197	342	486	475	3,655	691	763	1,199	1,002
Commercial	14	3	3	4	4	5	2	2	1	------
Industrial [5]	1,236	140	280	407	409	3,521	644	720	1,168	989
All other	250	54	59	75	62	129	45	41	30	13
Military and naval [6]	1,779	546	394	399	438	5,223	665	1,139	1,977	1,442
Conservation and development [7]	376	80	91	99	106	339	71	90	102	76
Public service enterprises	230	49	60	65	56	150	39	46	37	28
All other Federal	45	10	11	12	12	63	8	6	23	26

[1] The estimates include expenditures for new construction in the continental United States. They do not include work-relief construction expenditures or maintenance expenditures. The estimates do include expenditures for major additions and alterations.

[2] Bureau of Labor Statistics forecast.

[3] Estimated by Bureau of Agricultural Economics through 1941; by Bureau of Labor Statistics for 1942.

[4] Includes war housing.

[5] Includes war and nonwar industrial facilities.

[6] Does not include industrial facilities or war housing.

[7] Includes construction expenditures of Bureau of Reclamation, TVA; Army Engineers (river, harbor, and flood control); Indian Service; Forest Service; National Park Service; and Soil Conservation Service.

[1] Prepared in the Bureau's Division of Construction and Public Employment.

Public Construction

The third-quarter increase in public construction was largely the result of an increase of 838 million dollars in military and naval construction and one of 448 millions in industrial facilities. Public residential construction, increasing from 101 million dollars in the second quarter to 173 millions in the third quarter, showed the largest percentage increase of all types of public construction. Activity on public residential construction, which at the present time consists entirely of war housing, is expected to increase slightly in the fourth quarter. Both industrial facilities and military and naval construction will decline in the fourth quarter, but military and naval construction at a more rapid rate than industrial facilities.

Highway construction declined sharply from pre-war levels and in the third quarter of 1942 amounted to only 175 million dollars, as against 347 million in the same period in 1941. Further curtailment is expected in the fourth quarter, with war industrial plant and military-reservation access roads and strategic highways accounting for an increasing percentage of total highway construction.

Conservation and development work showed a gain of 13 percent over the second quarter of 1942. Most of this work is necessary to the war effort, but seasonal factors and the stopping of work on nonessential projects will bring the fourth-quarter figure down to about 75 percent of the third-quarter total.

Construction work in connection with public-service enterprises, such as electric light and power, public transportation, and water and sewer systems declined 20 percent from the level of the preceding 3-month period and 43 percent from the third quarter of 1941. Shortages of critical materials have cut this type of work to the point where construction is going ahead only on those projects essential to the war.

Private Construction

Private construction declined 21 percent from the preceding quarter and 55 percent from the third quarter of 1941. All types of privately financed construction were sharply reduced from the levels of 1941, and all but public-utility construction showed decreases from the preceding quarter. Activity on nonfarm residential construction dropped from 473 million dollars in the second quarter to 295 million in the third quarter and is expected to decline to about 255 million in the fourth quarter.

Nonresidential building construction activity decreased more than one-third from the second quarter, with construction of commercial buildings dropping from 58 to 19 million dollars. It is anticipated that construction of commercial buildings will fall to approximately 8 million dollars in the last quarter. Construction of industrial buildings, including privately financed war plants, declined only slightly from the preceding quarter.

Shortages of labor and materials have had the effect of reducing farm construction by about 38 percent from the 1941 level. Third-quarter activity was approximately the same as in the second quarter, with a 6-percent drop in farm residential building and a gain of 9 percent in the construction of farm-service buildings.

Public-utility construction showed a slight gain over the preceding quarter but was 10 percent less than the volume in the third quarter of 1941. Since many of the utility systems have already been built up to meet essential war needs, the volume of utility construction will probably not exceed 144 million dollars in the last quarter of the year.

FOOD PRICES IN OCTOBER 1942

RETAIL costs of food continued to advance between September 15 and October 13, and the Bureau's index for 51 cities combined rose from 126.6 to 129.6 percent of the 1935–39 average. This represents an average increase of 2.4 percent over the 4-week period, an increase of 6.6 percent above mid-May, and 16.1 percent over October 1941. The October 1942 level was the highest reached since May 1930, when the index was 129.9.

Most of the rise occurred during the latter part of September and early October 1942, prior to the OPA action bringing an additional 30 percent of the average family's food bill under control as of October 5. Foods placed under control at that time rose 5.6 percent between mid-September and mid-October. The average cost for foods controlled prior to September 15 advanced 0.2 percent during the month. Foods not under direct control by the Office of Price Administration, chiefly fresh fruits and vegetables, rose 5.9 percent after September 15, and on October 13 averaged 16.7 percent above May 12, the date of the last survey before price control was placed in operation at the retail level.

TABLE 1.—*Changes in Retail Costs of Food in 51 Large Cities Combined, by Commodity Groups*

Commodity group	Percent of change, October 13, 1942, compared with—				Commodity group	Percent of change, October 13, 1942, compared with—			
	1942		1941	1939		1942		1941	1939
	Sept. 15	May 12	Oct. 14	Aug. 15		Sept. 15	May 12	Oct. 14	Aug. 15
All foods	+2.4	+6.6	+16.1	+38.6	Dairy products	+2.7	+6.4	+9.4	+40.9
Controlled	+1.9	+2.1	(1)	(1)	Eggs	+6.2	+42.8	+20.0	+81.9
Uncontrolled	+5.9	+16.7	(1)	(1)	Fruits and vegetables	+5.8	+6.6	+31.9	+48.5
Cereals and bakery products	+.3	+.5	+3.4	+13.2	Fresh	+6.9	+7.2	+34.6	+50.1
Meats	+.5	+5.6	+16.2	+37.1	Canned	+1.0	+1.9	+20.5	+36.5
Beef and veal	+.4	+1.9	+9.9	+27.0	Dried	+5.0	+14.7	+33.5	+66.7
Pork	+.3	+1.0	+13.8	+41.4	Beverages	+.2	−.4	+11.8	+30.8
Lamb	−.5	+12.5	+20.0	+34.6	Fats and oils	+.3	−1.1	+14.7	+43.3
Chickens	−.5	+17.3	+30.9	+40.6	Sugar	−.1	−.2	+12.8	+32.7
Fish, fresh and canned	+2.7	+14.5	+31.4	+73.5					

[1] Not available.

Some of the large advances over the month were in the group of foods brought under control by OPA on October 5, particularly butter and other dairy products, eggs, with their usual seasonal advance,

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oranges, potatoes, and onions. Substantial increases were also shown in prices of other fresh vegetables which are still not under OPA control. Prices of meats and certain other foods under direct control continued to edge up slightly.

Details by Commodity Groups

Indexes of retail costs of food by commodity groups are presented in table 2 for May, August, September, and October 1942, October 1941, and August 1939. The accompanying charts show the trend of the costs of all foods, January 1913 to October 1942, inclusive, and for each major commodity group for the period January 1929 to October 1942, inclusive.

TABLE 2.—*Indexes of Retail Costs of Food in 51 Large Cities Combined,*[1] *by Commodity Groups, in Specified Months*

[1935–39=100]

Commodity group	1942				1941	1939
	Oct. 13[2]	Sept. 15	Aug. 18	May 12	Oct. 14	Aug. 15
All foods	129.6	126.6	126.1	121.6	111.6	93.5
Cereals and bakery products	105.7	105.4	105.3	105.2	102.2	93.4
Meats	131.2	[3] 130.6	129.5	124.3	112.9	95.7
Beef and veal	126.5	[3] 126.0	125.3	124.1	115.1	99.6
Pork	124.4	124.0	123.3	123.2	109.3	88.0
Lamb	133.0	133.7	133.0	118.2	110.8	98.8
Chickens	133.0	133.7	131.8	113.4	101.6	94.6
Fish, fresh and canned	172.8	168.2	164.7	150.9	131.5	99.6
Dairy products	131.2	127.7	125.8	123.3	119.9	93.1
Eggs	164.8	155.2	145.7	115.4	137.3	90.7
Fruits and vegetables	137.2	129.7	133.1	128.7	104.0	92.4
Fresh	139.3	130.3	135.2	130.0	103.5	92.8
Canned	125.0	123.8	122.8	122.7	103.7	91.6
Dried	150.5	143.4	138.8	131.2	112.7	90.3
Beverages	124.1	123.8	123.5	124.6	111.0	94.9
Fats and oils	121.1	120.7	120.4	122.4	105.6	84.5
Sugar	126.9	127.0	126.7	127.1	112.5	95.6

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[2] Preliminary.
[3] Revised.

Cereals and bakery products.—Average prices of wheat flour and corn meal advanced by about 2 percent, as 24 cities reported increases for flour and 16 for meal. The prices for white bread were unchanged in all cities but 2, where some stores reported a small increase. Whole-wheat bread rose 1.1 percent, as a result of price changes in 2 cities and a weight change in 1 city. A slight decrease was shown for vanilla cookies, while other cereals and bakery products remained stable. The average cost for cereals and bakery products rose 0.3 percent.

Meats.—The cost of meats continued the steady advance begun in December 1941, rising one-half of 1 percent from mid-September to mid-October. Prices for beef rose by 0.4 percent. Sliced bacon was 1 percent higher than in September, and ham prices also rose slightly. Lamb rib-chop prices dropped substantially, as is usual at this time of year. There was also a reduction in the price of roasting chickens. (Poultry was placed under control by OPA on October 5.)

Dairy products.—The index for the dairy-products group advanced 2.7 percent from mid-September to mid-October, with butter up by

6.7 percent, cheese by 4.7 percent, and evaporated milk by 3.4 percent. All foods in the group except fresh milk were brought under OPA control on October 5, and retail prices were frozen at the highest levels prevailing between September 28 and October 2. The prices of fresh milk, under OPA control for some time, remained unchanged during the month.

Eggs.—Egg prices rose seasonally with all cities reporting increases. The net rise over the month amounted to 6.2 percent. On October 13 egg prices were 20 percent higher than a year earlier.

Fruits and vegetables.—Costs for all fruits and vegetables rose 5.8 percent, owing chiefly to sharp increases for many fresh and dried fruits and vegetables. Oranges rose 13.8 percent (somewhat more than the usual seasonal advance), and bananas, which had been selling below ceiling levels, increased 3.9 percent. The price of apples, which is not under control, remained unchanged. Prices for fresh green beans, carrots, and lettuce advanced 44, 17, and 11 percent, respectively. The U. S. Department of Agriculture reported an 18-percent increase in truck prices for farmers between September 15 and October 15. However, large seasonal declines at retail were reported for sweetpotatoes, spinach, and cabbage. Dried prunes rose 8.1 percent and navy beans 1.1 percent. Prices of canned fruits and vegetables rose 1.0 percent as the effect of the OPA order, permitting higher prices on the new pack, reached retail markets.

Beverages.—The cost of beverages rose slightly during the month, to a point approximately 12 percent above October 1941. Reports of shortages in supplies of coffee and tea were received from all cities covered by the Bureau, and price increases were reported for coffee in 16 cities and for tea in 18 cities.

Fats and oils.—Prices for fats and oils rose slightly. Prices for peanut butter increased as the 1942 pack (uncontrolled) replaced the 1941 pack (controlled) in the retail market. Slight increases were reported for oleomargarine, while hydrogenated shortening continued to decline.

Sugar.—Sugar prices at retail were practically unchanged, with 16 cities reporting decreases and 19 showing slight increases.

Average prices of 65 foods in 51 cities combined are presented in table 3 for May, September, and October 1942, and October 1941.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May, September, and October 1942 and October 1941*

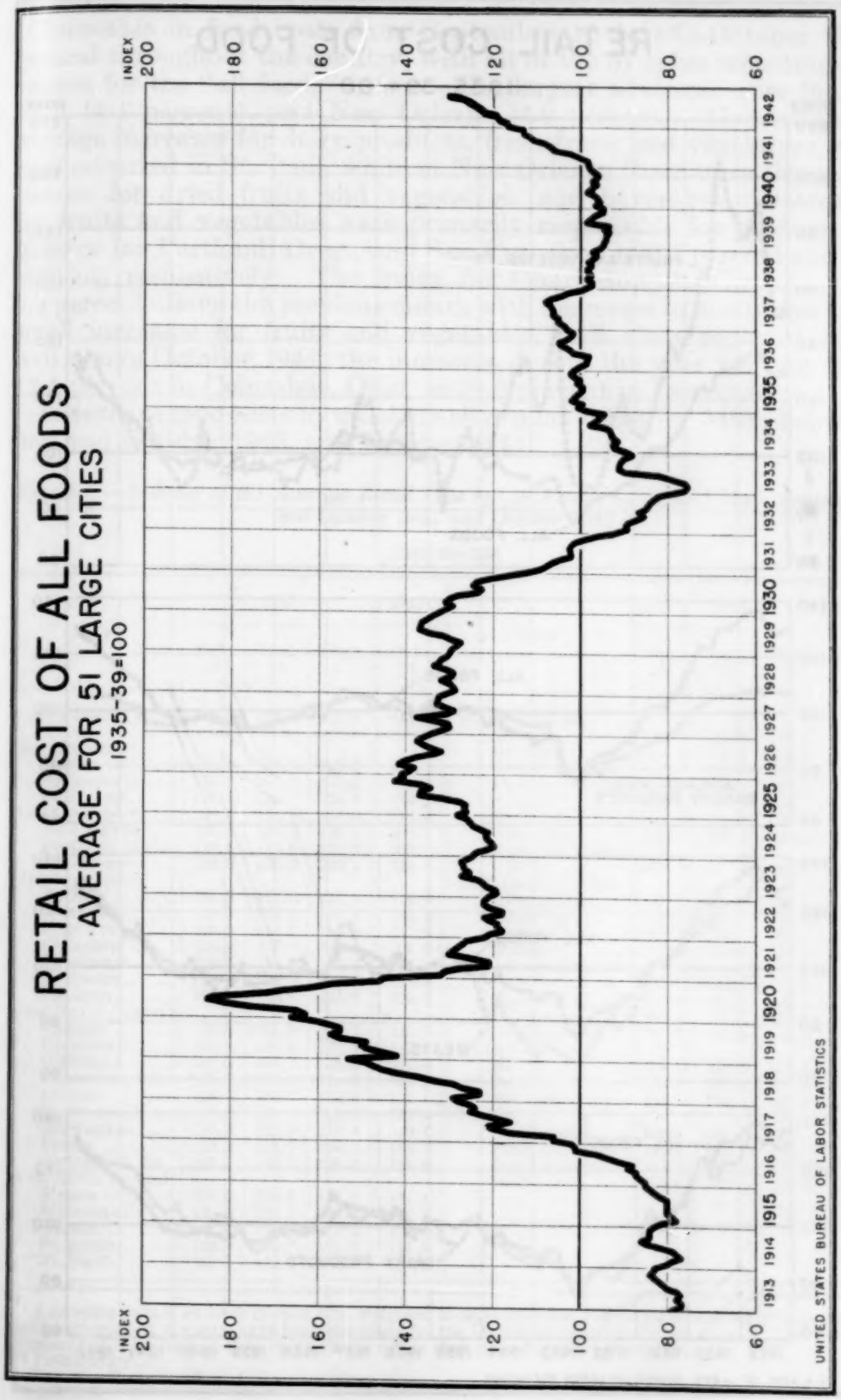
Article		1942			1941
		Oct. 13[1]	Sept. 15	May 12	Oct. 14
Cereals and bakery products:					
Cereals:		*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat	10 pounds	55.3	54.3	51.6	48.3
Macaroni	pound	14.1	14.1	14.2	14.0
Wheat cereal[2]	28-oz. pkg.	24.0	[3] 24.0	24.1	23.6
Corn flakes	8 ounces	7.0	7.0	7.2	7.1
Corn meal	pound	5.1	5.0	4.7	4.4
Rice[2]	do	12.5	12.5	12.3	9.1
Rolled oats[2]	do	8.7	8.7	8.6	7.4
Bakery products:					
Bread, white	do	8.7	8.7	8.7	8.7
Bread, whole wheat	do	9.6	9.5	9.5	9.4
Bread, rye	do	9.7	9.7	9.7	9.6
Vanilla cookies	do	26.8	27.0	27.7	25.8
Soda crackers	do	16.6	16.6	16.4	15.2

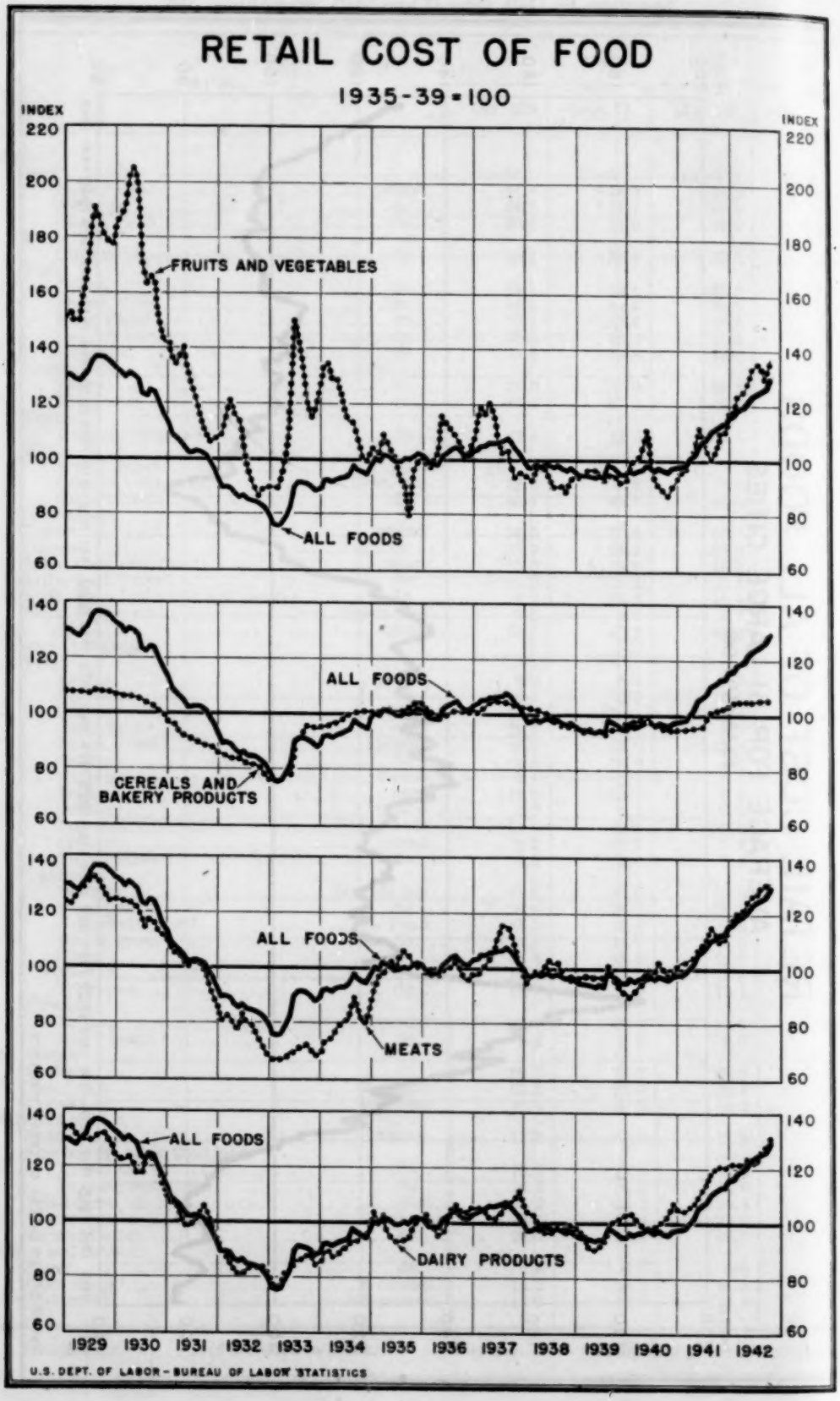
See footnotes at end of table.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May, September, and October 1942 and October 1941*—Continued

Article	1942			1941
	Oct. 13 [1]	Sept. 15	May 12	Oct. 14
Meats:				
Beef:	*Cents*	*Cents*	*Cents*	*Cents*
Round steak ..... pound	44.5	[3] 44.2	44.2	40.4
Rib roast ..... do	34.8	[3] 34.7	34.0	31.8
Chuck roast ..... do	30.2	30.0	28.9	26.9
Veal:				
Cutlets ..... do	55.1	54.9	53.6	50.1
Pork:				
Chops ..... do	43.1	43.1	43.2	38.1
Bacon, sliced ..... do	41.3	40.9	39.3	36.9
Ham, sliced [2] ..... do	59.7	[3] 59.6	58.8	53.6
Ham, whole ..... do	38.4	38.3	37.8	32.8
Salt pork ..... do	23.8	23.8	24.0	20.4
Lamb:				
Leg ..... do	38.0	37.9	33.8	31.2
Rib chops ..... do	46.4	47.1	41.3	39.1
Poultry:				
Roasting chickens ..... do	42.4	42.5	36.1	32.4
Fish:				
Fresh, frozen ..... do	[4]	[4]	[4]	[4]
Salmon, pink ..... 16-oz. can	22.0	21.8	21.8	19.9
Salmon, red [2] ..... do	40.7	40.6	40.0	35.3
Dairy products:				
Butter ..... pound	54.0	50.6	45.7	43.4
Cheese ..... do	35.9	34.3	34.0	33.8
Milk, fresh (delivered) ..... quart	15.0	15.0	14.9	14.5
Milk, fresh (store) ..... do	13.5	13.5	13.5	13.4
Milk, fresh (delivered and store) [3] ..... do	14.5	14.5	14.4	14.1
Milk, evaporated ..... 14½-oz. can	9.2	8.9	8.7	8.7
Eggs ..... dozen	58.5	55.2	40.9	48.7
Fruits and vegetables:				
Fresh:				
Apples ..... pound	6.2	6.2	7.5	4.9
Bananas ..... do	10.7	10.3	12.0	7.5
Oranges ..... dozen	44.5	39.1	31.4	37.5
Grapefruit [3] ..... each	10.1	9.4	6.3	8.5
Beans, green ..... pound	16.7	11.6	13.4	11.9
Cabbage ..... do	3.8	3.9	4.5	3.5
Carrots ..... bunch	8.1	6.9	6.6	5.7
Lettuce ..... head	13.9	12.5	9.2	9.4
Onions ..... pound	4.7	4.5	6.8	4.1
Potatoes ..... 15 pounds	51.1	48.3	53.0	34.5
Spinach ..... pound	9.7	10.7	7.4	6.8
Sweetpotatoes ..... do	5.6	6.4	5.4	4.3
Canned:				
Peaches ..... No. 2½ can	24.6	24.0	23.3	21.2
Pineapple ..... do	28.5	28.3	27.1	22.0
Grapefruit juice [2] ..... No. 2 can	13.0	12.4	9.8	9.5
Beans, green [2] ..... do	13.8	13.7	14.0	11.4
Corn ..... do	13.4	13.3	13.0	11.9
Peas ..... do	14.6	[3] 14.6	15.8	13.9
Tomatoes ..... do	11.7	11.6	12.1	9.7
Dried:				
Prunes ..... pound	16.0	14.8	12.3	10.1
Navy beans ..... do	9.2	9.1	9.0	8.1
Beverages:				
Coffee ..... do	28.2	28.7	28.9	26.1
Tea ..... ¼ pound	22.2	22.4	22.4	19.3
Cocoa [3] ..... ½ pound	10.4	10.2	10.2	9.1
Fats and oils				
Lard ..... pound	17.3	17.3	17.9	15.4
Shortening, other than lard:				
In cartons ..... do	19.5	19.5	19.8	17.4
In other containers ..... do	24.3	24.4	25.8	22.6
Salad dressing ..... pint	25.2	25.2	25.4	23.0
Oleomargarine ..... pound	22.5	22.4	22.4	18.5
Peanut butter ..... do	28.2	27.8	26.9	19.3
Sugar and sweets:				
Sugar ..... do	6.8	6.9	6.9	6.0
Corn sirup [2] ..... 24 ounces	15.2	15.1	14.8	14.1
Molasses [2] ..... 18 ounces	15.0	14.9	14.5	13.5

[1] Preliminary. [2] Not included in index. [3] Revised. [4] Composite prices not computed.


RETAIL COST OF ALL FOODS
AVERAGE FOR 51 LARGE CITIES
1935-39=100
INDEX
200
180
160
140
120
100
80
60
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
UNITED STATES BUREAU OF LABOR STATISTICS


RETAIL COST OF FOOD
1935-39 = 100
INDEX
FRUITS AND VEGETABLES
ALL FOODS
CEREALS AND BAKERY PRODUCTS
MEATS
DAIRY PRODUCTS
1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
U.S. DEPT. OF LABOR - BUREAU OF LABOR STATISTICS

Details by Cities

Increases in food costs from September 15 to mid-October were general throughout the country, with all of the 51 cities reporting advances for the "all foods" index. The largest advances were for St. Paul (4.1 percent), and New Orleans (4.0 percent). Greater-than-average increases for dairy products, fresh fruits and vegetables, and eggs occurred in St. Paul, while in New Orleans there were sharp advances for dried fruits and vegetables, and beverages. Decreases for fruits and vegetables were primarily responsible for holding the indexes for Portland, Oreg., and San Francisco to 0.7 percent and 0.8 percent, respectively. The index for Charleston, S. C., was only 0.9 percent above the previous month with decreases in meats and only small increases for fruits and vegetables. All cities reported costs well above October 1941, the increases during the year varying from 12.4 percent in Columbus, Ohio, to 24.6 percent in Los Angeles.

Indexes of food costs by cities are shown in table 4 for May, September, and October 1942, and October 1941.

TABLE 4.—*Indexes of the Average Retail Cost of All Foods, by Cities,*[1] *May, September, and October 1942 and October 1941*

[1935–39=100]

City	1942			1941	City	1942			1941
	Oct. 13[2]	Sept. 15	May 12	Oct. 14		Oct. 13[2]	Sept. 15	May 12	Oct. 14
United States	129.6	126.6	121.6	111.6	South Atlantic:				
New England:					Atlanta	129.0	125.9	120.4	112.2
Boston	128.5	124.4	118.3	108.5	Baltimore	133.8	131.2	125.8	113.6
Bridgeport	128.6	127.1	121.3	109.9	Charleston, S. C.	127.7	126.6	123.2	112.6
Fall River	128.3	125.7	120.8	110.1	Jacksonville	137.7	134.2	127.4	117.5
Manchester	128.8	126.8	124.0	110.9	Norfolk[3]	134.2	131.9	126.1	115.2
New Haven	128.6	126.2	120.6	108.3	Richmond	128.2	126.2	120.9	112.3
Portland, Maine	128.5	125.8	121.7	109.3	Savannah	137.1	133.3	130.3	118.3
Providence	128.9	126.3	122.1	110.9	Washington, D. C.	129.5	128.1	120.7	111.9
Middle Atlantic:					East South Central:				
Buffalo	131.8	127.6	125.2	114.4	Birmingham	128.1	125.3	120.5	109.7
Newark	130.3	128.0	120.9	111.2	Louisville	126.9	124.2	122.6	111.6
New York	128.0	125.2	118.0	111.4	Memphis	132.6	129.7	123.5	111.3
Philadelphia	125.8	123.9	119.4	109.0	Mobile	136.8	133.9	126.8	118.9
Pittsburgh	129.4	125.9	121.4	111.8	West South Central:				
Rochester	128.2	125.2	122.3	111.1	Dallas	126.1	123.7	116.8	110.0
Scranton	129.0	125.6	121.0	109.8	Houston	132.9	130.8	125.9	116.6
East North Central:					Little Rock	130.9	129.2	123.2	111.3
Chicago	128.9	[4]124.9	121.7	113.5	New Orleans	141.4	135.9	129.0	118.8
Cincinnati	130.1	126.9	122.4	112.6	Mountain:				
Cleveland	131.8	127.3	124.1	114.0	Butte	129.5	124.6	121.5	109.6
Columbus, Ohio	122.7	119.6	118.6	109.2	Denver	128.4	126.8	122.9	109.9
Detroit	128.2	124.7	122.4	111.1	Salt Lake City	134.0	130.1	124.2	113.9
Indianapolis	129.2	127.1	125.0	112.6	Pacific:				
Milwaukee	125.2	121.0	119.8	109.2	Los Angeles	140.0	137.9	128.1	112.4
Peoria	135.2	130.7	129.0	114.7	Portland, Oreg.	142.2	141.2	134.5	120.3
Springfield, Ill.	133.1	130.2	128.0	112.8	San Francisco	134.6	133.5	125.5	112.6
West North Central:					Seattle	139.6	137.3	129.9	118.1
Kansas City	124.0	120.7	118.8	107.1					
Minneapolis	126.6	123.3	120.9	112.5					
Omaha	127.1	123.2	119.9	108.0					
St. Louis	129.9	126.7	123.8	114.6					
St. Paul	125.8	120.8	118.7	109.3					

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.

[2] Preliminary.

[3] Includes Portsmouth and Newport News.

[4] Revised.

Annual Average Indexes of Retail Food Costs, 1913–41

Annual average indexes of food costs for the years 1913–41, and monthly indexes for January 1941 to October 1942, inclusive, are shown in table 5.

TABLE 5.—*Indexes of Retail Food Costs in 51 Large Cities Combined, by Years, From 1913 to 1941, and by Months, January 1941 to October 1942*

[1935–39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913	79.9	1928	130.8	*1941*		*1942*	
1914	81.8	1929	132.5				
1915	80.9	1930	126.0	January	97.8	January	116.2
1916	90.8	1931	103.9	February	97.9	February	116.8
1917	116.9	1932	86.5	March	98.4	March	118.6
1918	134.4	1933	84.1	April	100.6	April	119.6
1919	149.8	1934	93.7	May	102.1	May	121.6
1920	168.8	1935	100.4	June	105.9	June	123.2
1921	128.3	1936	101.3	July	106.7	July	124.6
1922	119.9	1937	105.3	August	108.0	August	126.1
1923	124.0	1938	97.8	September	110.7	September	126.6
1924	122.8	1939	95.2	October	111.6	October	129.6
1925	132.9	1940	96.6	November	113.1		
1926	137.4	1941	105.5	December	113.1		
1927	132.3						

COAL PRICES IN SEPTEMBER 1942

THERE were no significant changes in retail prices of coal during the 3-month period from June 15 to September 15, 1942. Bituminous-coal prices advanced slightly, and Pennsylvania anthracite remained unchanged except for a minor rise for the stove size. Prices of Arkansas anthracite showed a small increase, and Colorado and New Mexico anthracites were unchanged.

For the year ending September 15, 1942, price increases were greater for bituminous coal, with an average advance of 2.2 percent, than for anthracite. The greatest increase for domestic sizes of Pennsylvania anthracite was 0.6 percent for chestnut.

Maximum prices of coal have been controlled either by mutual agreement or under formal regulation for about a year. Basic price levels for mines or producers are those prevailing October 1–15, 1941; and for retail dealers, those of December 15–31, 1941. Adjustments in maximum prices for both retailers and mines or producers have been made from time to time to correct local conditions and to compensate for higher freight rates.

Average prices of coal, together with indexes for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite, are presented in table 6 for September and June 1942 and September 1941.

TABLE 6.—*Average Retail Prices of Coal in Large Cities Combined, September and June 1942 and September 1941*

Kind of coal	Average retail price per ton of 2,000 pounds			Index of retail price (October 1922–September 1935=100)			Percent of change, Sept. 15, 1942, compared with—	
	1942		1941	1942		1941	1942	1941
	Sept. 15[1]	June 15	Sept. 15	Sept. 15[1]	June 15	Sept. 15	June 15	Sept. 15
Bituminous coal (35 cities), old series[2]	9.54	9.49	9.34	97.0	96.6	94.9	+0.4	+2.2
Pennsylvania anthracite (25 cities), new series:[3]								
Stove	12.42	12.41	12.36	88.2	88.1	87.8	+.1	+.5
Chestnut	12.48	12.48	12.41	88.8	88.8	88.3	0	+.6
Pea	10.55	10.55	10.53	.....	.....	.....	0	+.2
Buckwheat No. 1	8.57	8.57	8.57	.....	.....	.....	0	0
Western anthracite:								
Arkansas (6 cities)	13.63	13.60	[4]13.46	.....	.....	.....	+.2	+1.3
Colorado (1 city)	15.85	15.85	15.81	.....	.....	.....	0	+.3
New Mexico (1 city)	24.72	24.72	23.86	.....	.....	.....	0	+3.6

[1] Preliminary.
[2] Unweighted average; weighted composite prices are in preparation.
[3] Weighted on the basis of the distribution by rail or rail and tidewater to each city during the 12-month period from Aug. 1, 1935, to July 31, 1936.
[4] Revised.

WHOLESALE PRICES IN OCTOBER 1942[1]

THE Bureau of Labor Statistics comprehensive index of prices of nearly 900 series in primary markets[2] rose 0.4 percent in October to equal the level for the base year 1926. Further gains in prices for farm products and foods, largely livestock and dairy products, accounted for the advance. Fluctuations in prices for industrial commodities were narrow and were for the most part downward. At 100 percent of the 1926 average the index is more than 8 percent higher than in October 1941 and 33 percent above the low level of August 1939.

Average prices for farm products rose 1.1 percent during the month and foods advanced 1.0 percent. Hides and leather products and miscellaneous commodities declined fractionally. The index for raw materials increased 0.8 percent and that for manufactured commodities rose 0.2 percent, while prices for semimanufactured commodities declined slightly.

Agricultural commodity prices have risen substantially in the past year. Livestock and poultry and fruits and vegetables were approximately 30 percent higher than in October 1941. Meats were up 23 percent; "other farm products," 17 percent; dairy products, nearly 15 percent; and grains, 12 percent. The index for the farm products group was 21 percent higher than a year ago, while foods advanced 16 percent over the year period.

With the outbreak of hostilities in the autumn of 1939, prices rose rapidly from their relatively low levels reached in August of that year. Among the outstanding increases were gains of 150 percent for industrial fats and oils; 87 percent for livestock and poultry; 81 percent for cattle feed; more than 70 percent for grains, "other farm products," and cotton goods; over 60 percent for dairy products, fruits and vegetables, and drugs and pharmaceuticals; above 50 percent for meats, "other foods," hides and skins, and "other textile products"; at least 40 percent for woolen and worsted goods and lumber; and from 20 to 40 percent for cereal products, shoes, leather, clothing, motor vehicles, paint and paint materials, furniture, automobile tires and tubes, paper and pulp, and crude rubber.

Notwithstanding the passage of the anti-inflation bill in early October and the President's instructions to extend price ceilings to cover additional agricultural commodities, prices for certain farm

[1] During the period of rapid changes caused by price controls, materials allocation, and rationing, the Bureau of Labor Statistics will attempt promptly to report changing prices. Indexes marked (*), however, must be considered as preliminary and subject to such adjustment and revision as required by later and more complete reports.

[2] The Bureau of Labor Statistics wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points.

products not under control rose sharply during the month. "Other farm products," including such important commodities as cotton, eggs, milk in the Chicago market, seeds, potatoes, domestic wool, oranges, hops, and tobacco, rose 2.2 percent. Livestock and poultry advanced 1.1 percent as a result of marked increases in prices for cows, steers, hogs, and lambs. Quotations were lower for calves, live poultry, and onions. Grain prices dropped 2.2 percent, with corn down 7 percent; oats and rye, over 5 percent; and wheat fractionally lower. Barley, on the other hand, rose more than 5 percent.

Average prices for foods in primary markets increased 1.0 percent, largely as a result of an advance of 3.5 percent for dairy products. Quotations were higher for butter, cheese, and fresh milk in some markets. Opening prices on evaporated and condensed milk were also higher but these were later dropped back to the former level. In addition, prices were higher for wheat flour, mutton, cured pork, canned cherries and pears, lard, peanut butter, and vegetable oils. Lower prices were reported for corn meal, rice, fresh beef, dressed poultry, and jelly.

Further declines in prices for Brazilian goatskins forced the index for hides and leather products down 0.3 percent. Quotations for shoes and leather were steady.

Lower prices for certain cotton yarns, twine, sateen, and underwear were offset by higher prices for jute, and the index for textile products remained unchanged at 97.1 percent of the 1926 average.

Fractional advances in prices for bituminous coal in some areas and for Oklahoma fuel oil did not affect the index for the fuel and lighting materials group.

In the building materials group of commodities, substantially higher prices were reported for rosin and turpentine, and sales realizations for some types of lumber increased. Prices were lower for linseed oil, shellac, tar, for birch and for several species of pine lumber.

An increase of over 20 percent was reported in prices for silver nitrate, while acetone dropped 14 percent and ergot declined 19 percent. The movement in prices for fertilizer materials was mixed. Ground bones and cottonseed meal advanced while phosphate rock declined.

In the miscellaneous commodity group lower prices were reported for cattle feed, cylinder oil, textile soap, and boxboard. Prices were higher for powdered soap, chips, and flakes.

Percentage comparisons of the October 1942 level of wholesale prices with September 1942, October 1941, and August 1939, with corresponding index numbers, are given in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, October 1942 with Comparisons for September 1942, October 1941 and August 1939*

[1926=100]

Group and subgroup	October 1942	September 1942	Percent of change	October 1941	Percent of change	August 1939	Percent of change
All commodities	*100.0	*99.6	+0.4	92.4	+8.2	75.0	+33.3
Farm products	109.0	107.8	+1.1	90.0	+21.1	61.0	+78.7
Grains	91.5	93.6	−2.2	81.4	+12.4	51.5	+77.7
Livestock and poultry	123.4	122.1	+1.1	94.5	+30.6	66.0	+87.0
Other farm products	104.4	102.2	+2.2	88.9	+17.4	60.1	+73.7
Foods	103.4	102.4	+1.0	88.9	+16.3	67.2	+53.9
Dairy products	109.2	105.5	+3.5	95.2	+14.7	67.9	+60.8
Cereal products	89.3	89.1	+.2	86.4	+3.4	71.9	+24.2
Fruits and vegetables	98.2	97.5	+.7	75.8	+29.6	58.5	+67.9
Meats	115.5	116.0	−.4	93.6	+23.4	73.7	+56.7
Other foods	95.4	94.0	+1.5	85.8	+11.2	60.3	+58.2
Hides and leather products	117.8	118.1	−.3	112.6	+4.6	92.7	+27.1
Shoes	126.4	126.4	0	118.8	+6.4	100.8	+25.4
Hides and skins	116.0	118.0	−1.7	113.1	+2.6	77.2	+50.3
Leather	101.3	101.3	0	100.9	+.4	84.0	+20.6
Other leather products	115.2	115.2	0	106.8	+7.9	97.1	+18.6
Textile products	97.1	97.1	0	90.9	+6.8	67.8	+43.2
Clothing	107.0	107.0	0	97.8	+9.4	81.5	+31.3
Cotton goods	112.4	112.7	−.3	105.2	+6.8	65.5	+71.6
Hosiery and underwear	70.5	69.7	+1.1	66.6	+5.9	61.5	+14.6
Rayon	30.3	30.3	0	30.3	0	28.5	+6.3
Silk	(1)	(1)	------	(1)	------	44.3	------
Woolen and worsted goods	111.7	111.7	0	102.3	+9.2	75.5	+47.9
Other textile products	97.4	97.8	−.4	95.6	+1.9	63.7	+52.9
Fuel and lighting materials	79.0	79.0	0	79.6	−.8	72.6	+8.8
Anthracite	85.7	85.7	0	85.3	+.5	72.1	+18.9
Bituminous coal	111.0	110.4	+.5	108.1	+2.7	96.0	+15.6
Coke	122.1	122.1	0	122.2	−.1	104.2	+17.2
Electricity	(1)	(1)	------	66.2	------	75.8	------
Gas	(1)	81.1	------	78.9	------	86.7	------
Petroleum and products	60.6	60.6	0	61.7	−1.8	51.7	+17.2
Metals and metal products	*103.8	*103.8	0	103.1	+.7	93.2	+11.4
Agricultural implements	96.9	96.9	0	93.8	+3.3	93.5	+3.6
Farm machinery	98.0	98.0	0	94.8	+3.4	94.7	+3.5
Iron and steel	97.2	97.2	0	97.0	+.2	95.1	+2.2
Motor vehicles	*112.8	*112.8	0	112.3	+.4	92.5	+21.9
Nonferrous metals	86.0	86.0	0	84.6	+1.7	74.6	+15.3
Plumbing and heating	94.1	94.1	0	87.8	+7.2	79.3	+18.7
Building materials	110.4	110.4	0	107.3	+2.9	89.6	+23.2
Brick and tile	98.7	98.7	0	96.6	+2.2	90.5	+9.1
Cement	94.2	94.2	0	92.7	+1.6	91.3	+3.2
Lumber	133.3	133.2	+.1	129.5	+2.9	90.1	+47.9
Paint and paint materials	101.0	100.4	+.6	96.0	+5.2	82.1	+23.0
Plumbing and heating	94.1	94.1	0	87.8	+7.2	79.3	+18.7
Structural steel	107.3	107.3	0	107.3	0	107.3	0
Other building materials	103.3	103.8	−.5	101.5	+1.8	89.5	+15.4
Chemicals and allied products	96.2	96.2	0	89.7	+7.2	74.2	+29.6
Chemicals	96.2	96.3	−.1	88.4	+8.8	83.8	+14.8
Drugs and pharmaceuticals	128.8	128.9	−.1	124.1	+3.8	77.1	+67.1
Fertilizer materials	78.3	78.2	+.1	77.3	+1.3	65.5	+19.5
Mixed fertilizers	82.8	82.8	0	77.5	+6.8	73.1	+13.3
Oils and fats	101.5	101.5	0	93.4	+8.7	40.6	+150.0
Housefurnishing goods	102.5	102.5	0	99.5	+3.0	85.6	+19.7
Furnishings	107.3	107.4	−.1	104.4	+2.8	90.0	+19.2
Furniture	97.4	97.4	0	94.4	+3.2	81.1	+20.1
Miscellaneous	88.6	88.8	−.2	86.4	+2.5	73.3	+20.9
Automobile tires and tubes	73.0	73.0	0	65.5	+11.5	60.5	+20.7
Cattle feed	123.8	124.2	−.3	112 9	+9.7	68.4	+81.0
Paper and pulp	98.8	98.8	0	101.9	−3.0	80.0	+23.5
Rubber, crude	46.3	46.3	0	46.6	−.6	34.9	+32.7
Other miscellaneous	92.4	92.7	−.3	92.1	+.3	81.3	+13.7
Raw materials	103.0	102.2	+.8	89.7	+14.8	66.5	+54.9
Semimanufactured articles	92.7	92.9	−.2	89.9	+3.1	74.5	+24.4
Manufactured products	*99.4	*99.2	+.2	93.9	+5.9	79.1	+25.7
All commodities other than farm products	*97.9	*97.7	+.2	92.8	+5.5	77.9	+25.7
All commodities other than farm products and foods	*95.5	*95.5	0	93.4	+2.2	80.1	+19.2

* Preliminary.
[1] Data not available.

Index Numbers by Commodity Groups, 1926 to October 1942

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1941, inclusive, and by months from October 1941 to October 1942, inclusive, are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
1941:											
October	90.0	88.9	112.6	90.9	79.6	103.1	107.3	89.7	99.5	86.4	92.4
November	90.6	89.3	114.1	91.1	78.8	103.3	107.5	89.8	100.6	87.3	92.5
December	94.7	90.5	114.8	91.8	78.4	103.3	107.8	91.3	101.1	87.6	93.6
1942:											
January	100.8	93.7	114.9	93.6	78.2	103.5	109.3	96.0	102.4	89.3	96.0
February	101.3	94.6	115.3	95.2	78.0	103.6	110.1	97.0	102.5	89.3	96.7
March	102.8	96.1	116.7	96.6	77.7	103.8	110.5	97.1	102.6	89.7	97.6
April	104.5	98.7	119.2	97.7	77.7	103.8	110.2	97.1	102.8	90.3	98.7
May	104.4	98.9	118.8	98.0	78.0	103.9	110.1	97.3	102.9	90.5	98.8
June	104.4	99.3	118.2	97.6	78.4	103.9	110.1	97.2	102.9	90.2	98.6
July	105.3	99.2	118.2	97.1	79.0	103.8	110.3	96.7	102.8	89.8	98.7
August	106.1	100.8	118.2	97.3	79.0	103.8	110.3	96.2	102.7	88.9	99.2
September	107.8	102.4	118.1	97.1	79.0	*103.8	110.4	96.2	102.5	88.8	*99.6
October	109.0	103.4	117.8	97.1	79.0	*103.8	110.4	96.2	102.5	88.6	*100.

*Preliminary.

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 to 12 of Wholesale Prices, December and Year 1941 (Serial No. R. 1434).

TABLE 3.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	1942:					
1929	97.5	93.9	94.5	93.3	91.6	January	96.1	91.7	96.4	94.8	94.6
1932	55.1	59.3	70.3	68.3	70.2	February	97.0	92.0	97.0	95.5	94.9
1933	56.5	65.4	70.5	69.0	71.2	March	98.2	92.3	97.8	96.2	95.2
1937	84.8	85.3	87.2	86.2	85.3	April	100.0	92.8	98.7	97.2	95.6
						May	99.7	92.9	99.0	97.4	95.7
1938	72.0	75.4	82.2	80.6	81.7						
1939	70.2	77.0	80.4	79.5	81.3	June	99.8	92.8	98.6	97.1	95.6
1940	71.9	79.1	81.6	80.8	83.0	July	100.1	92.8	98.6	97.0	95.7
1941	83.5	86.9	89.1	88.3	89.0	August	101.2	92.7	98.9	97.5	95.6
1941:						September	102.2	92.9	*99.2	*97.7	*95.5
October	89.7	89.9	93.9	92.8	93.4	October	103.0	92.7	*99.4	*97.9	*95.5
November	90.2	89.7	93.8	92.7	93.5						
December	92.3	90.1	94.6	93.3	93.7						

* Preliminary.

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during September and October 1942 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, September and October 1942*

[1926=100]

Commodity group	Oct. 31	Oct. 24	Oct. 17	Oct. 10	Oct. 3	Sept. 26	Sept. 19	Sept. 12	Sept. 5
All commodities	*99.7	*99.7	*99.6	*99.8	*99.7	*99.4	*99.3	*99.2	*99.1
Farm products	109.1	108.7	107.9	108.9	108.7	107.3	107.1	107.2	106.7
Foods	103.0	103.1	103.1	103.3	103.0	102.0	102.0	101.6	101.4
Hides and leather products	118.4	118.4	118.4	118.4	118.4	118.4	118.6	119.0	119.0
Textile products	96.6	96.5	96.5	96.5	96.6	96.7	96.6	96.7	96.7
Fuel and lighting materials	79.6	79.6	79.7	79.7	79.7	79.6	79.6	79.6	79.6
Metals and metal products	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9
Building materials	110.2	110.2	110.2	110.5	110.5	110.5	110.4	110.3	110.3
Chemicals and allied products	96.1	96.1	96.1	96.2	96.2	96.2	96.2	96.2	96.2
Housefurnishing goods	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1
Miscellaneous	88.5	88.3	88.4	88.4	88.4	88.6	88.6	88.6	88.6
Raw materials	102.7	102.5	102.0	102.6	102.4	101.5	101.5	101.6	101.2
Semimanufactured articles	92.5	92.5	92.5	92.8	92.8	92.8	92.8	92.7	92.7
Manufactured products	*99.5	*99.6	*99.7	*99.7	*99.6	*99.5	*99.4	*99.3	*99.2
All commodities other than farm products	*97.7	*97.7	*97.8	*97.9	*97.8	*97.7	*97.6	*97.5	*97.5
All commodities other than farm products and foods	*95.7	*95.6	*95.6	*95.7	*95.7	*95.7	*95.7	*95.7	*95.7

* Preliminary.

Trend of Employment and Unemployment

SUMMARY OF REPORTS OF EMPLOYMENT FOR OCTOBER 1942

THE number of employees in civil nonagricultural establishments reached a total of 38,555,000 in mid-October, the highest on record. The gain from mid-September was 207,000 and from October a year ago, 2½ million. These figures do not include proprietors of unincorporated businesses, self-employed persons, unpaid family workers, domestics employed in private homes, personnel of the NYA, WPA, and CCC, and the uniformed personnel of the Army, Navy, Marine Corps, and Coast Guard. They are based on preliminary October and revised September reports.

Trade as a whole showed a seasonal employment increase of 118,000, largely as a result of expansion in department, variety, and clothing stores, although Government restrictions on the manufacture and sale of civilian goods continued to affect many lines of trade. Manufacturing firms reported 64,000 more wage and salaried employees in October, although a slight decline is normally expected at this time. In Federal, State, and local government departments, civilian employment increased by 205,000, most of the expansion being in Federal war agencies. Employment declines were shown in the construction, finance-service-miscellaneous, mining, and transportation-public utility industry groups.

A comparison between October 1941 and October 1942 showed a gain of 1,700,000 wage and salaried workers in manufacturing. This accounted for about two-thirds of the 2½ million increase in all nonagricultural establishments. Civilian Federal, State, and local government employment increased by 1,211,000 over the year, partly because of expansion in the War and Navy Departments. Smaller gains were reported by the transportation-public utility and the finance-service-miscellaneous groups. The largest decline over the year interval was in trade (391,000), where Government restrictions and curtailed stocks reduced sales in many lines. Construction employment was 115,000 lower and mining employment 87,000 lower than a year ago.

Industrial and Business Employment

Increases in employment between mid-September and mid-October were reported by 96 of the 152 manufacturing, and by 5 of the 16 nonmanufacturing industries surveyed monthly by the Bureau of Labor Statistics. Pay-roll gains were shown by 133 of the manufacturing and by 9 of the nonmanufacturing industries. A small contraseasonal gain (0.4 percent) in factory wage-earner employment, coupled with a larger than seasonal increase (3.5 percent) in wage-

earner pay rolls, continued the almost unbroken succession of monthly gains that began with accelerated war production in June 1940. The index of factory employment for October 1942 stood at 154.8 percent of the 1939 level compared with 102.5 for June 1940. The corresponding factory pay-roll index was 261.0 compared with 107.6 in June 1940. The greater advance in pay rolls than in employment over this period reflected increased working hours, overtime premiums, wage-rate increases, and expansion in war industries, where relatively high wage scales prevail. The gains between October 1941 and October 1942 were 11.4 percent in employment and 39.8 percent in wages.

The gains in the durable-goods group of manufacturing industries, where war production is largely concentrated, were even more pronounced. Employment showed a gain of 20.7 percent over the year period, and pay rolls an increase of 52.9 percent. During the month employment increased by 1.8 percent and pay rolls by 4.9 percent. Among the war industries which showed substantial gains were aircraft, shipbuilding, automobiles, electrical equipment, ammunition, explosives, radios, and machine-shop products. In the nondurable-goods group, employment fell 1.3 percent between September and October due largely to a seasonal decline of 39.3 percent in the canning industry. Over the year interval, the nondurable-goods group showed a gain of 1.4 percent. Pay rolls in this group increased by 2.7 percent over the month and 19.6 percent over the year interval. Material shortages and Government restrictions on the production of goods for civilian consumption were primarily responsible for the employment decline in the cast-iron pipe, tin can, cutlery, typewriter, and jewelry industries.

All of the mining industries reported employment declines over the month and year intervals. The reductions between September and October were relatively small; but between October 1941 and October 1942 they were fairly large, ranging from 2.9 percent in metal mining to 10.5 percent in crude-oil production, and reflected a cumulative downward trend, as a result of the difficulty of replacing men called into the armed services or absorbed into industries with relatively high wage scales. Pay rolls showed marked gains over the year interval in bituminous-coal mining, quarrying and nonmetallic mining, and metal mining, resulting from more hours worked per week as well as from wage-rate increases.

Dyeing and cleaning plants reported a net contraseasonal employment gain of 1.3 percent over September, and year-round hotels, a seasonal rise of 1.5 percent. Laundries showed a small seasonal recession, and insurance companies, a decline. Employment reductions were reported by telephone and telegraph, and electric light and power companies, but street railways and busses continued to report gains in number of workers as pressure upon public transportation facilities continued.

In wholesale trade, employment increased slightly (less than seasonally), all of the major groups showing declines except farm products, which showed a seasonal gain of 13.7 percent, and groceries and food specialities, which showed a slight increase. Retail employment expanded seasonally by 2.9 percent despite Government restrictions on the manufacture and sale of many civilian commodities. Outstanding gains were reported by variety stores (7.4 percent), family clothing stores (6.7 percent), department stores (6.6 percent),

women's apparel stores (6.3 percent), and men's and boys' clothing (5.4 percent).

A preliminary report of the Interstate Commerce Commission for class I steam railroads show that employment remained at virtually the same level in October as in September (1,321,453). Corresponding pay rolls for October were not available when this report was prepared. For September they were $253,547,919, a decrease of $3,423,411 since August. It should be noted that the decrease in pay rolls was due to the fact that September has only 30 days while August has 31.

Hours and earnings.—Average hours worked per week by manufacturing wage earners were 44.6, an increase of 5.1 percent since September. The corresponding average hourly earnings were 86.6 cents, a decrease of 2.2 percent over the preceding month. The average weekly earnings of wage earners (both full- and part-time combined) were $38.86, an increase of 2.8 percent since September. Of the 16 nonmanufacturing industries regularly surveyed, 14 showed increases in average weekly earnings. Of the 14 nonmanufacturing industries for which man-hour information is available, 10 reported increases in average weekly hours and 11 showed gains in average hourly earnings.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Combined and in Nonmanufacturing Industries, September and October 1942 and October 1941*

[Preliminary]

Industry	Employment index			Pay-roll index			Average weekly earnings		
	October 1942	September 1942	October 1941	October 1942	September 1942	October 1941	October 1942	September 1942	October 1941
	(1939=100)			(1939=100)					
All manufacturing industries combined.[1]	154.8	154.2	139.0	261.0	252.1	186.8	$38.86	$37.79	$31.60
	(1935-39=100)								
Class I steam railroads[2]	129.5	129.5	119.4	(3)	(3)	(3)	(3)	(3)	(3)
Coal mining:	(1929=100)			(1929=100)					
Anthracite	46.3	46.7	50.3	47.9	50.3	49.2	34.08	35.52	32.12
Bituminous	90.7	91.6	95.3	126.1	122.2	122.6	37.11	35.64	34.27
Metalliferous mining	77.4	78.6	79.7	102.7	103.0	88.3	41.19	40.69	34.86
Quarrying and nonmetallic mining	50.0	50.7	54.1	68.6	67.5	61.5	33.89	32.85	28.88
Crude petroleum production	55.1	55.8	61.6	64.4	64.5	64.4	43.29	42.77	38.39
Public utilities:									
Telephone and telegraph	93.4	93.6	90.6	126.2	130.5	117.0	33.06	34.10	31.53
Electric light and power	82.9	84.2	94.1	111.2	112.5	115.7	40.70	40.59	37.50
Street railways and busses	76.0	75.7	70.3	94.9	93.6	78.4	40.75	40.39	36.32
Trade:									
Wholesale	89.6	89.4	96.3	94.7	92.4	92.0	36.83	36.04	33.48
Retail	94.4	91.7	101.0	96.4	93.1	97.3	23.43	23.41	22.07
Hotels (year-round)[4]	95.3	93.9	96.2	102.3	98.5	91.9	18.35	17.95	16.50
Laundries	115.6	116.4	111.2	118.5	117.3	103.4	21.51	21.15	19.31
Dyeing and cleaning	124.6	123.0	121.2	112.7	107.9	98.5	25.24	24.49	22.56
Brokerage[5]	−1.4	−3.8	−23.6	+1.5	−1.1	−19.3	43.06	41.86	39.72
Insurance[5]	−1.4	−1.4	−3.6	−.3	−1.8	+.7	38.06	37.67	37.89
Building construction[5]	−4.2	−3.9	−31.7	−3.3	−.1	−14.0	46.38	45.40	36.50
Water transportation[6]	74.6	71.4	77.6	+7.3	+10.2	+68.7	(3)	(3)	(3)

[1] Employment and pay-roll indexes for manufacturing are now based on 1939 average as 100 and are adjusted to 1940 and 1941 data supplied by Bureau of Employment Security. Not comparable with previously published indexes.

[2] Preliminary; source—Interstate Commerce Commission.

[3] Not available.

[4] Cash payments only; the additional value of board, room, and tips cannot be computed.

[5] Indexes of employment and pay rolls not available. Percentage changes from September to October 1942, August to September 1942, and October 1941 to October 1942 substituted.

[6] Based on estimates prepared by the U. S. Maritime Commission covering steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only.

Wage-rate increases between September 15 and October 15 averaging 7.0 percent and affecting 172,000 factory wage earners were specifically reported by 731 out of a reporting sample of about 35,000 establishments employing approximately 9 million workers. The largest numbers of workers receiving increases were in the following industries: Blast furnaces, steel works, and rolling mills; radios; woolen and worsted goods; and chemicals. Wage-rate increases in nonmanufacturing industries affected only small numbers of workers.

Employment and pay-roll indexes and average weekly earnings for September and October 1942 and October 1941 are given in table 1 for all manufacturing industries combined, for selected nonmanufacturing industries, water transportation, and class I steam railroads.

Public Employment

Employment in the regular Federal services (executive, legislative, and judicial) aggregated over 2¾ millions in October, increasing 165,000 over September 1942 and 1,237,000 over October 1941. Of the September-October increase, 155,000 was in the War and Navy Departments and war emergency establishments, and 10,000 in nonwar establishments. From October 1941 to October 1942 employment in the war agencies rose 165 percent as compared with 10 percent for nonwar agencies.

Federally financed construction and shipbuilding showed declines of 25,400 for employment and $1,606,000 for pay rolls. Gains were registered on shipbuilding projects; but these were offset by declines on nonresidential-building, airport, and public-housing construction because certain projects were completed, and on public roads, reclamation, and water and sewerage projects because of seasonal factors. Of the 2,170,000 building-trades workers engaged on all Federally financed projects, 2,068,000, or 95 percent, were engaged on war projects. Only 14 percent were on the direct pay roll of the Federal Government, however, the others being employed by contractors and subcontractors.

With the beginning of the new school year the student-work program of the National Youth Administration added 33,400 workers. At the same time a reduction on the war production training program brought the net increase to 18,400 and total NYA personnel to 121,000.

Reductions on the WPA and CCC programs of 20,000 and 700 persons, respectively, left personnel aggregating 381,000 and 3,200. Over the past year the WPA has dropped 659,000 workers and the CCC, 170,000.

For the regular Federal services, data for the legislative, judicial, and force-account employees are reported to the Bureau of Labor Statistics by the respective offices; for the executive-service employees, data are reported through the Civil Service Commission. The Bureau of Labor Statistics receives monthly reports on employment and pay rolls for the various construction projects financed wholly or partially by Federal funds directly from the contractors and subcontractors, and for the NYA and work-relief programs from the respective agencies.

A summary of employment and pay-roll data for the regular Federal services, for construction projects financed wholly or partially from Federal funds, and for other Federal programs is given in table 2.

TABLE 2.—*Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially From Federal Funds, in Specified Months*

[Subject to revision]

Class	Employment			Pay rolls		
	October 1942	September 1942	October 1941	October 1942	September 1942	October 1941
Federal services:						
Executive [1]	2,717,093	2,590,890	1,519,063	$450,385,852	$416,794,644	$235,836,628
Judicial	2,664	2,664	2,569	677,736	677,736	653,725
Legislative	6,319	6,314	6,242	1,379,162	1,378,153	1,341,587
Construction projects:						
Financed from regular Federal appropriations [2]	1,988,062	2,010,376	888,029	393,886,593	393,368,511	147,968,251
War	1,888,444	1,911,841	734,342	376,665,519	375,995,100	127,302,397
Other	99,618	98,535	153,687	17,221,074	17,373,411	20,665,854
Public housing [3]	78,827	83,529	78,384	11,391,509	12,839,243	10,973,674
War public works	9,289	9,185	53	1,222,254	1,173,859	6,065
Financed by PWA	0	71	3,575	0	14,262	493,829
Financed by RFC [4]	93,341	91,797	21,989	18,168,474	18,878,660	3,431,600
War	91,224	89,640	20,191	17,805,003	18,495,453	3,149,994
Other	2,117	2,157	1,798	363,471	383,207	281,606
Other programs:						
Work Projects Administration projects	381,295	401,050	1,040,483	25,627,385	27,104,865	62,933,276
War	123,812	145,848	328,350	9,250,000	10,900,000	20,079,987
Other	257,483	255,202	712,133	16,377,385	16,204,865	42,853,289
National Youth Administration [5]	121,445	103,015	567,853	2,686,697	2,671,830	8,933,498
Student work program	35,372	996	274,853	297,521	7,378	1,739,650
War production training program	86,073	102,019	293,000	2,389,176	2,664,452	7,193,848
Civilian Conservation Corps	3,182	3,921	172,706	473,946	723,055	8,465,633

[1] Includes force-account employees also included under construction projects, and supervisory and technical employees also included under WPA, NYA, and CCC. Data for public employment offices which were federalized in January 1942 are included for September and October 1942.

[2] Includes new Federal ship construction.

[3] Includes all Federal housing projects, including those formerly under the United States Housing Authority.

[4] Includes employees and pay roll of the RFC Mortgage Co.

[5] Beginning July 1942, the National Youth Administration is considered a training program for war work rather than a work-relief program. Value of maintenance is included in the pay-roll data for October 1941, but excluded from September and October 1942.

DETAILED REPORTS FOR INDUSTRIAL AND BUSINESS EMPLOYMENT, SEPTEMBER 1942

THE base year for the Bureau's trend of employment data is being shifted to 1939. Because of the delay entailed by the recomputations incident to this change of base, it is necessary to omit from this issue of the Monthly Labor Review the monthly report covering September 1942. The detailed mimeographed report on Trend of Employment and Pay Rolls is, however, being issued as usual and is available on request.

EMPLOYMENT AND UNEMPLOYMENT IN OCTOBER 1942

DURING October 1942 unemployment in the United States dropped to a new low for the third consecutive month, according to returns from the Bureau of the Census sample Monthly Report on the Labor Force. The October decline of approximately 100,000 persons reduced the Nation's unemployment total to 1,600,000. The civilian labor force

also declined by 100,000, while the total number of persons employed remained unchanged at 52,400,000 (table 1).

TABLE 1.—*Estimated Civilian Labor Force, by Employment Status and by Sex, April 1940–October 1942*

[Source: U. S. Department of Commerce, Bureau of the Census]

Month	Estimated number (millions of persons)								
	Labor force			Employed			Unemployed [1]		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1940									
April	53.9	40.6	13.3	45.1	34.1	11.0	8.8	6.5	2.3
May	54.7	41.3	13.4	46.3	35.3	11.0	8.4	6.0	2.4
June	56.2	42.3	13.9	47.6	36.4	11.2	8.6	5.9	2.7
July	56.9	43.1	13.8	47.6	36.8	10.8	9.3	6.3	3.0
August	56.6	42.9	13.7	47.7	36.9	10.8	8.9	6.0	2.9
September	54.9	41.5	13.4	47.9	36.7	11.2	7.0	4.8	2.2
October	54.4	41.3	13.1	47.0	36.2	10.8	7.4	5.1	2.3
November	53.7	41.1	12.6	46.3	35.8	10.5	7.4	5.3	2.1
December	53.4	40.9	12.5	46.3	35.7	10.6	7.1	5.2	1.9
1941									
January	53.0	40.7	12.3	45.3	35.1	10.2	7.7	5.6	2.1
February	52.9	40.6	12.3	45.7	35.4	10.3	7.2	5.2	2.0
March	52.7	40.4	12.3	45.8	35.4	10.4	6.9	5.0	1.9
April	53.5	40.9	12.6	46.8	36.2	10.6	6.7	4.7	2.0
May	54.2	40.9	13.3	48.5	37.0	11.5	5.7	3.9	1.8
June	56.2	42.3	13.9	50.2	38.3	11.9	6.0	4.0	2.0
July	56.6	42.6	14.0	50.9	38.9	12.0	5.7	3.7	2.0
August	56.4	42.4	14.0	51.0	38.8	12.2	5.4	3.6	1.8
September	54.8	41.0	13.8	50.3	38.0	12.3	4.5	3.0	1.5
October	54.1	40.4	13.7	50.2	37.9	12.3	3.9	2.5	1.4
November	54.1	40.3	13.8	50.2	37.7	12.5	3.9	2.6	1.3
December	54.0	40.2	13.8	50.2	37.6	12.6	3.8	2.6	1.2
1942									
January	53.2	40.0	13.2	48.9	37.0	11.9	4.3	3.0	1.3
February	53.4	40.0	13.4	49.4	37.2	12.2	4.0	2.8	1.2
March	54.5	40.0	14.5	50.9	37.6	13.3	3.6	2.4	1.2
April	53.7	39.8	13.9	50.7	37.8	12.9	3.0	2.0	1.0
May	54.2	40.0	14.2	51.6	38.4	13.2	2.6	1.6	1.0
June	56.1	41.1	15.0	53.3	39.4	13.9	2.8	1.7	1.1
July	56.8	41.6	15.2	54.0	39.9	14.1	2.8	1.7	1.1
August	56.2	41.1	15.1	54.0	39.7	14.3	2.2	1.4	.8
September	54.1	39.2	14.9	52.4	38.2	14.2	1.7	1.0	.7
October	54.0	39.0	15.0	52.4	38.1	14.3	1.6	.9	.7

[1] Includes persons on public emergency projects.

The relatively small net change in the size of the civilian labor force between September and October fails to reveal the extent of the shifts that took place in the composition of the working force. A decline of 200,000 among workers under 25 years of age was partially offset by an increase of 100,000 among older workers (table 2). Similarly, the number of men in the civilian labor force declined by 200,000 whereas the number of women increased by 100,000. These developments reflected the entry of young men into the armed forces as well as the return of students to school in some areas.

Changes in the sex composition of the civilian labor force resulting from the growth of the armed forces and the expansion of industrial and agricultural production during the past 2 years are clearly shown by a comparison of the figures for October 1942 with those for October 1940

(table 1). The number of men in the civilian labor force declined by 2,300,000 over the 2-year period, while the number of women increased by 1,900,000.

TABLE 2.—*Estimated Civilian Labor Force, Employment, and Unemployment, by Age Groups, September and October of 1940, 1941, and 1942* [1]

[Source: U. S. Department of Commerce, Bureau of the Census]

Labor-market status and age	1942		1941		1940	
	October	September	October	September	October	September
	Estimated number (millions of persons)					
Labor force	54.0	54.1	54.1	54.8	54.4	54.9
14 to 24 years	11.8	12.0	12.0	12.6	12.5	12.8
25 to 54 years	33.7	33.6	34.0	33.8	34.0	34.2
55 years and over	8.5	8.5	8.1	8.4	7.9	7.9
Employed	52.4	52.4	50.2	50.3	47.0	47.9
14 to 24 years	11.3	11.4	10.7	11.0	9.9	10.2
25 to 54 years	32.9	32.7	32.1	31.7	30.4	30.8
55 years and over	8.2	8.3	7.4	7.6	6.7	6.9
Unemployed	1.6	1.7	3.9	4.5	7.4	7.0
14 to 24 years	.5	.6	1.3	1.6	2.6	2.6
25 to 54 years	.8	.9	1.9	2.1	3.6	3.4
55 years and over	.3	.2	.7	.8	1.2	1.0
	Unemployment rate [2] (percent[3])					
All age groups	3.0	3.2	7.2	8.3	13.6	12.8
14 to 24 years	4.4	4.4	11.0	12.9	21.1	21.0
25 to 54 years	2.2	2.6	5.8	6.2	10.7	9.9
55 years and over	4.1	3.5	7.9	9.8	14.1	12.3
	Percentage distribution of unemployed [3]					
All age groups	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years	32.2	30.8	33.5	35.9	35.8	38.1
25 to 54 years	46.2	51.8	50.1	46.1	49.2	48.1
55 years and over	21.6	17.4	16.4	18.0	15.0	13.8

[1] All data exclude persons in institutions. Persons on public emergency work projects are included with the unemployed.
[2] Unemployed as a percent of labor force in each age group.
[3] Percentages computed from unrounded numbers.

Recent Publications of Labor Interest

DECEMBER 1942

Agricultural Labor

Backgrounds of the war farm labor problem. Washington, U. S. Bureau of Agricultural Economics and Farm Security Administration, 1942. 183 pp.; mimeographed.

At the beginning of the study there is a summary analysis of farm labor problems and of recommendations for action. Prominent among the recommendations is an extension of public policies in the field of wage regulation, and legal protection to agricultural workers. Part 2 describes farm labor and gives an account of the economic and social status of hired farm workers. Part 3 describes the farm labor market, including some account of placement methods and collective bargaining, and discusses the problems of extending to hired farm workers the measures of legislative protection developed for nonagricultural labor.

The farm labor problem: its size and shape. (In Land Policy Review, Washington. U. S. Bureau of Agricultural Economics, Vol. V, No. 7, fall 1942, pp. 3–48.)

Farm labor policies, number of workers needed, balancing supply and demand, wages, and the function of the labor exchange, are among the subjects treated by different writers.

War and farm work. By Robert C. Tetro and Martin R. Cooper. Washington, U. S. Bureau of Agricultural Economics, 1942. 21 pp., illus. (Department of Agriculture miscellaneous publication No. 492.) 10 cents, Superintendent of Documents, Washington.

The bulletin is designed primarily to aid farmers and farm managers in conserving the labor supply, including both hired and family labor. It is based on publications prepared by State colleges and suggestions contributed by farm-management specialists of the Bureau of Agricultural Economics.

Child Labor and Child Welfare

Child welfare in the defense communities. By Inez M. Cavert. (In Information Service, Federal Council of Churches of Christ in America, Department of Research and Education, New York, October 24, 1942, pp. 1–4. 5 cents.)

Includes information on housing, health services, education, child labor, juvenile delinquency, and need of care for children of working mothers.

For our children in wartime. (In The Child, U. S. Children's Bureau, Washington, October 1942, pp. 46, 47. 5 cents, Superintendent of Documents, Washington.)

Program of State action for children in wartime adopted August 28, 1942, by the Children's Bureau Commission on Children in Wartime in consultation with the Office of Defense Health and Welfare Services and the Office of Civilian Defense. The measures which will assure security and opportunity for every child are enumerated, and the procedure for carrying out this program in the State is described. Stress is laid on conservation of health and educational opportunity when the needs of the Nation require the participation of young persons.

Safeguarding young workers in wartime agriculture: Report of conference on supervision and employment conditions for young workers in wartime agriculture, June 18–19, 1942. (In The Child, U. S. Children's Bureau, Washington, August 1942, pp. 15–20. 5 cents, Superintendent of Documents, Washington.)

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entry. The amounts do not include postage, and also they are subject to change.

Regulation of street trades in the United States. Washington, U. S. Children's Bureau, 1942. 14 pp.; mimeographed.

Summarizes State legislation relating specifically to employment of children in street trades.

Children in Soviet Russia. By Deana Levin. London, Faber & Faber, Ltd., 1942. 196 pp. 6s.

Based on knowledge gained as a teacher in Moscow, the author gives a detailed account of the education and training of children in the Soviet Union, emphasizing schooling methods and curricula.

Cooperative Movement

Cooperative democracy through voluntary association of the people as consumers: A discussion of the cooperative movement, its philosophy, methods, accomplishments, and possibilities, and its relation to the State, to science, art, and commerce, and to other systems of economic organization. By James Peter Warbasse. New York, Harper & Bros., 1942. 285 pp., bibliography. 4th ed. $2.50.

The standard American work on the philosophy of the consumers' cooperative movement.

The cooperative movement and the war. Washington, U. S. Bureau of Labor Statistics, 1942. 20 pp. (Serial No. R. 1483, reprint from September 1942 Monthly Labor Review.) Free.

Cooperative politics inside capitalist society. By Fred Longden. Birmingham, England, Cornish Bros., Ltd., 1941. 252 pp., illus. 8s. 6d.

Solving problems through cooperation. Summarized by Rachel Rowe Swiger and Conrad Taeuber from annual reports of 20 Farm Security Administration farm and home supervisors. Washington, U. S. Bureau of Agricultural Economics and Farm Security Administration, 1942. 11 pp.; mimeographed.

Shows the various ways in which Farm Security Administration clients have assisted themselves by cooperative activities.

Wartime work of the Cooperative Union: How the Union helps cooperative societies to solve a thousand topical problems. Manchester, England, Cooperative Union, Ltd., 1941. 31 pp. 3d.

Recites the activities of the Cooperative Union of Great Britain in the fields of research, labor, agriculture, education, etc., particularly as they relate to wartime needs and developments.

Operations of credit unions in 1941. Washington, U. S. Bureau of Labor Statistics, 1942. 8 pp. (Serial No. R. 1482, reprint from September 1942 Monthly Labor Review.) Free.

Annual report of Massachusetts Commissioner of Banks, for year ending December 31, 1941: Part IV, relating to credit unions. Boston, 1942. xix, 214 pp. (Public document No. 8.)

Economic and Social Problems

End social inequality—a program for ordinary people. By Barbara Wootton. London, Kegan Paul, Trench, Trubner & Co., Ltd., 1941. 63 pp. (Democratic order, No. 16.) 1s.

The author advocates a classless society.

Forced savings. By Buel W. Patch. Washington, Editorial Research Reports, 1013 Thirteenth Street NW., 1942. 14 pp. (Vol. 2, 1942, No. 10.) $1.

Discusses different proposals for forced savings in the United States and describes the plans adopted in Great Britain and Canada.

Monopoly in the United States. Prepared by Labor Research Association. New York, International Publishers Co., Inc., 1942. 48 pp. 10 cents.

Summary of findings of Temporary National Economic Committee, whose work was completed early in 1941, with some reference to the reports of the Senate Special Committee Investigating the National Defense Program (the Truman Committee).

Readings in the social control of industry. Selected by committee of American Economic Association. Philadelphia, Blakiston Co., 1942. 494 pp., bibliography. $2.75.

The articles presented in the volume deal with the more general problems of public policy toward industrial organization and control. They include: The "consumer" and "public" interests under public regulation; The organization of industry and the theory of prices; The British movement for industrial reconstruction and the control of competitive activity.

Wage earners' plans in the Federal courts. By Frederick Woodbridge. (In Minnesota Law Review, Minneapolis, June 1942, pp. 775–823. $1.)

Presents an analysis and operational study of wage-earner plans under chapter 13 of the Federal Bankruptcy Act. This chapter provides that wage-earner debtors may amortize their debts through the medium of the Federal courts.

The native labor problem of South Africa. By J. M. Tinley. Chapel Hill, University of North Carolina Press, 1942. xxii, 281 pp., bibliography, charts, maps. $3.

The experience of South Africa is an example of the dislocations that occur when an economy of prices and wages is superimposed on a more primitive tribal economy. No clear-cut solution of the problem is yet in sight, but the author indicates that it is essential to adopt a consistent policy of raising the efficiency of natives and affording them a fuller part in the economic life of the country.

Food and Nutrition

Canteens in industry—a guide to planning, management, and service. London, Industrial Welfare Society, Inc., 1942. 70 pp., plans. 5th ed. 2s. 6d.

Diets of a group of aircraft workers in Southern California. By Dorothy G. Wiehl (In Milbank Memorial Fund Quarterly, New York, October 1942, pp. 329–366; charts.)

The study covers diet histories of the consumption of selected foods, during 1 week, by 1,103 male aircraft workers. It shows the extent to which the diets reached or fell below the recommended daily allowance of specific nutrients.

Food in wartime: [No. 1], *Rationing and control of food supplies,* by J. M. Tinley; [No. 2], *Wartime transportation and distribution of foods,* by J. M. Tinley; [No. 3], *Planning for total food needs,* by E. C. Voorhies; [No. 4], *Farm problems in meeting food needs,* by R. L. Adams; [No. 5], *Adapting fruit and vegetable products to war needs,* by W. V. Cruess, M. A. Joslyn, Gordon Mackinney; [No. 6], *Control of food prices,* by J. M. Tinley. Berkeley and Los Angeles, University of California Press, 1942. 6 pamphlets; various paging. 25 cents each.

Almoço proletário e defesa nacional [*Brazil*]. By Paulo Seabra. (In Boletim do Ministério do Trabalho, Indústria e Comércio, Rio de Janeiro, August 1941, pp. 205–218.)

Address dealing with the question of suitable food for the working classes in Brazil, operation of certain low-cost restaurants under the direction of retirement and pension funds, and the status, to March 1941, of the Feeding Service of Social Welfare (*Serviço de Alimentação da Previdência Social*).

Continental Europe's pre-war food balance. By J. H. Richter. (In Foreign Agriculture, U. S. Office of Foreign Agricultural Relations, Washington, August 1942, pp. 299–312. 10 cents, Superintendent of Documents, Washington.)

Designed to provide background material needed for any quantitative evaluation of the continent's wartime food situation or its possible post-war requirements.

Food rationing and mortality in Paris, 1940–1941. By Ramon F. Minoli, M. D. (In Milbank Memorial Fund Quarterly, New York, July 1942, pp. 213–220.)

Covering approximately the first year of German occupation of Paris, the study shows a striking increase in tuberculosis, the new cases being characterized by rapid development and high fatality. The general mortality rate increased greatly as compared with the preceding four years and was especially high for elderly persons whose food rations were relatively most inadequate.

Housing

Indiana Real Estate and Mortgage Conference Study Committee on war housing problems. Bloomington, Indiana University, School of Business, 1942. 18 pp. (Indiana business reports, No. 9.)

Consists of two parts of which the first deals with the committee's recommendations and the second with housing in the post-war period.

Opportunities in the housing problem. (In Savings Bank Journal, New York, October 1942, pp. 8–30, 34, 36, illus. 50 cents.)

The articles in this symposium deal with various aspects of the housing problem and the opportunities for private enterprise in the housing field.

Recommendations of National Committee on the Housing Emergency: A program for housing workers in war industries. New York, National Committee on the Housing Emergency, 1942. 30 pp. 10 cents.

It is concluded that each community must act promptly to deal with its special war housing problems and that the dwellings provided need not be a blight on the community.

Used homes in the low-cost housing market. By William K. Wittausch. (In Journal of Land and Public Utility Economics, Madison, Wis., August 1942, pp. 350–356; chart. $1.50.)

Shows the inevitable importance of used properties in fulfilling low-cost housing needs, and the relation of new and old buildings in planning future housing.

Tucumán y su vivienda rural. By Carlos Mendióroz. (In La Habitación Popular, Comisión Nacional de Casas Baratas, Buenos Aires, January–June 1942, pp. 9–39; diagrams.)

A study of rural housing and living conditions in Tucumán Province of Argentina, the need for improvement, and availability of construction materials, with suggestions as to solution of the housing problem.

Industrial Hygiene

Concepto e historia de la medicina del trabajo. By Antonio de la Granda. (In Revista de Trabajo, Ministerio de Trabajo, Madrid, October 1941, pp. 452–459.)

Defines industrial medicine and gives historical sketches of the general subject and of medical instruction and labor inspection in Austria, Belgium, France, Germany, Great Britain, Italy, Japan, Russia, Switzerland, and the United States.

Evaluation of the industrial hygiene problems of Jefferson County, Alabama. By J. R. Spence. Montgomery, State Department of Public Health, 1941. 89 pp.; mimeographed.

Report of a survey covering 1,477 establishments, with 40,309 employees, in mining, manufacturing, and service industries. It presents information on industrial health service and sanitation facilities in the different industries, shows number of persons potentially exposed to various substances in the principal industries, and the relation between use of recognized control measures and potential exposures.

Fatigue and productivity. Princeton, N. J., Princeton University, Industrial Relations Section, 1942. 8 pp. (Industrial relations digests, XII.)

A digest of current practice and studies of industrial fatigue, prepared especially for companies facing rapid expansion and changes due to war orders.

Health hazards from inadequate coal-mine ventilation. By R. R. Sayers, M. D. Washington, U. S. Bureau of Mines, 1942. 18 pp., bibliography; mimeographed. (Information circular 7221.)

Describes the effects of different mine gases, both asphyxiants and irritants, and mine dusts, and discusses general preventive measures for the control of health hazards.

A medical study of men exposed to measured amounts of carbon monoxide in the Holland Tunnel for 13 years. By R. F. Sievers, M. D., T. I. Edwards, A. L. Murray, M. D. Washington, U. S. Public Health Service, 1942. 74 pp., bibliography, diagrams. (Public health bull. No. 278.) 15 cents, Superintendent of Documents, Washington.

Results of the clinical and laboratory examination of 156 traffic officers stationed at the Holland Tunnel fail to show that carbon monoxide or any other occupa-

tional exposure had influenced their state of health. The study was made for the purpose of determining whether the engineering and medical control measures set up for the protection of the health of the officers and the persons who use the tunnel are adequate.

Non-mercurial carroting agents in felt-hat manufacture. Harrisburg, Pennsylvania Department of Labor and industry, 1942. 6 pp., illus.; mimeographed. (Safe practice bull. No. 90.)

Description of the processes in felt-hat manufacture in which non-mercurial carroting agents are used.

Industrial Relations

Management looks at the labor problem. (In Business Week, New York, September 26, 1942, pp. 68–90, charts, illus.; also reprinted.)

Brief review of recent history of labor-management relations and discussion of current important developments in the field of industrial relations.

Problems and policies in industrial relations in a war economy—selected references. Princeton, N. J., Princeton University, Industrial Relations Section, August 15, 1942. 38 pp. 5th supplement. (Bibliographical series No. 69.)

The first Canadian bank strike. Toronto, Office and Professional Workers Organizing Committee, 1942. 22 pp. 10 cents.

Description of the strike affecting the Banque Canadienne Nationale by the union of bank clerks involved.

Trade-union agreements in Canadian industry, 1942. Kingston, Ont., Queen's University, Industrial Relations Section, 1942. 177 pp., bibliography. (Bull. No. 6.) $2.

Analysis of a sample of 150 collective-bargaining agreements covering conditions of employment for about 220,000 workers in a wide variety of industries in Canada.

Industry Reports

Automobile facts and figures, 24th edition, 1942. Detroit, Mich., Automobile Manufacturers Association, [1942]. 64 pp., charts, illus. Free.

The regular series of statistics carried in this yearly compilation have been brought up to date and augmented by new data on the automobile industry's war efforts. The pamphlet includes information on employment, wages, working hours, workers' use of automobiles to get to their workplaces, and war products being produced by the industry.

The automobile industry—post-war developments, 1918–21. By Irving Bernstein. Washington, U. S. Bureau of Labor Statistics, 1942. 88 pp.; mimeographed. (Historical study No. 52.) Free.

Sixtieth coal report of Illinois, 1941. Springfield, Department of Mines and Minerals, 1942. 255 pp.

Contains production and labor statistics.

The labor problem in the building industry. By G. D. H. Cole. (In Agenda, Cambridge, England, Vol. I, No. 2, April 1942, pp. 129–143. 6s.)

The author foresees great expansion in building construction in Great Britain following the war, owing to the need to replace war-damaged property, to make up for the stoppage in building, and to fit the physical plant to the needs of the modern world. The future of the industry will depend on decisions regarding the location of industry, and the population. Against this background the need for building labor is reviewed and tentative estimates made of the volume of different kinds of building labor that would be required under given circumstances.

The wool industry in war and peace: A study in control and concentration. By Dryden Brook. London, Victor Gollancz, Ltd., 1942. 25 pp. (Fabian Society research series No. 65.) 6d.

Assesses the strength and weakness of the system of control being employed in the British wool industry and its significance for the future reorganization of the industry.

Labor and Social Legislation

Digest of State and Federal labor legislation enacted July 1, 1941, to August 1, 1942. Washington, U. S. Department of Labor, Division of Labor Standards, 1942. 16 pp. 10 cents, Superintendent of Documents, Washington.

Laws relating to labor and employment [in Illinois], as amended and in force July 1, 1941. Compiled by Edward J. Hughes, Secretary of State. [Springfield, Secretary of State, 1941?] 178 pp.

Labor laws, State of Michigan, 1941–42. [Lansing], Department of Labor and Industry, 1942. 106 pp.

Wage and hour manual: Laws, rulings, interpretations in wage-hour regulation; a complete handbook and guide to Federal regulation of minimum wages, maximum hours, and child labor, cumulated to March 1, 1942. Washington, Bureau of National Affairs, Inc., 1942. 1074 pp. $5.

Influencia de la legislación del trabajo en las ramas tradicionales del derecho; tendencias a la codificación de la legislación social en América Latina. By Moisés Poblete Troncoso. (In Su Seguridad, Caja Costarricense de Seguro Social, San José, Costa Rica, May 2, 1942, pp. 9–16; reprinted from Revista Mexicana de Sociología, Mexico, D. F.)

Traces the development of labor legislation in Latin American Republics, particularly the tendency toward codification in Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Nicaragua, Panama, Peru, and Uruguay.

The present state of social legislation in the Argentine Republic. By Juan Raúl Pichetto. (In International Labor Review, Montreal, October 1942, pp. 383–419. 60 cents.)

Following a general survey of the development of labor legislation in Argentina, the writer discusses legislative provisions concerning the National Labor Department, employment of women and children, working hours, minimum wages, land settlement, employment contracts, unemployment, housing, workmen's compensation, savings funds, social insurance, enforcement of social legislation, and regulation of labor organizations.

Duração do trabalho [Brazil]. By José Luiz de Almeida Nogueira Porto. (In Legislação do Trabalho, São Paulo, April 1942, pp. 167–177; bibliography.)

Deals with Brazilian legislation on working hours, holidays, rest periods, and vacations.

Topical index to national constitutions. By Richard C. Spencer and Pearl C. Spencer. Philadelphia, American Academy of Political and Social Science, 1942. 84 pp. (James-Patten-Rowe pamphlet series, No. 12.) $1.

Entries are arranged by country under the different subjects, which include many labor and social questions.

Migration

Fifth interim report of Select Committee Investigating National Defense Migration: Recommendations on mobilization of manpower for the all-out war effort. Washington, Government Printing Office, 1942. 38 pp. (House report No. 2396, 77th Cong., 2d sess.)

The committee's recommendations deal with the following: Procurement policy and improved labor utilization; strengthening of existing agencies dealing with labor supply, and addition of new functions designed to rationalize the use of existing skills; occupational deferment; and supplemental appropriation.

National defense migration: The manpower of the Nation in war production. Hearings, Washington, February 1942, before Select Committee Investigating National Defense Migration, House of Representatives, 77th Congress, 2d session. Washington, Government Printing Office, 1942. Parts 27 and 28; various paging.

Exhibits presented in volume 1 of these hearings on the subject of manpower in war production include reports of migration surveys for 52 cities, of 25,000 population and over, made during 1941 by the Division of Social Research of the Work Projects Administration. Exhibits in volume 2 include reports by various authorities on woman and child labor, and a symposium on the labor-market policy of the United States by the Secretaries of Agriculture and Labor and the Administrator of the Federal Security Agency.

Migration to the Seattle labor market area, 1940–42. By Clark Kerr. Seattle, Wash., 1942. 60 pp., map. (University of Washington publications in the social sciences, Vol. 11, No. 3.)

The statistical data in the report are based on records of approximately 3,700 migrant workers in war plants and on interviews with about 400 additional migrants in the Seattle area. The report covers the volume and sources of the migration, characteristics of the migrants, factors affecting the migratory movement, and consequences of the movement.

Minimum Wage

Hired farm labor under minimum wage and maximum hours regulation. By E. L. Warren. (In Journal of Farm Economics, Menasha, Wis., February 1942, pp. 296–314.)

The author discusses the conditions that have given rise to recommendations for the extension of minimum-wage and maximum-hours regulations to agricultural labor. He concludes that such an extension appears to be consistent with the public welfare and also with the feasibility of such a program as demonstrated, in part at least, in a number of foreign countries.

Some effects of Federal Fair Labor Standards Act upon southern industry. By John F. Moloney. (In Southern Economic Journal, Chapel Hill, N. C., July 1942, pp. 15–23. $1.)

Deals with the effect of the minimum wage on individual industries, and concludes that wage differentials have been reduced, better management has been encouraged, and unemployment has been reduced somewhat.

Occupations and Occupational Adjustment

A career in engineering. By Lowell O. Stewart. Chicago, Science Research Associates, 1942. 49 pp., bibliography, illus. (American job series, Occupational monograph No. 30.)

Better rural careers. By Paul W. Chapman. Chicago, Science Research Associates, 1942. 264 pp., illus. 96 cents.

Outlines the many types of occupational opportunities to be found by young persons in rural areas.

The dynamics of vocational adjustment. By Donald E. Super. New York, Harper & Bros., 1942. 286 pp. $3.

Discusses the nature of vocational counseling, methods of making vocational choices, types of vocational preparation, means of entry into occupations, problems of adjustment to the job, and the organization of vocational guidance.

Vocations—a partial bibliography of recent publications in Iowa State College Library, with suggestions for locating additional material. Ames, Iowa State College Library, 1942. 32 pp.; mimeographed.

Movimento social trabalhista em São Paulo [Brazil]. By Italo Landucci. (In Boletim do Ministério do Trabalho, Indústria e Comércio, Rio de Janeiro, October 1941, pp. 83–100.)

Report on the work of the office which issues occupational identification cards in the Brazilian State of São Paulo, for the period 1930 to 1940, with information on the legislative background of the service. Statistics include groupings by industry for the entire period; and for the second half of the period an analysis according to sex, age, nationality, degree of literacy, marital state, and extent to which the recipients in major and minor industrial groups were unionized. For the year 1940 an industrial distribution by average salary is shown.

Production and Productivity of Labor

Handbook of war production. By Edwin Arthur Boyan. New York, McGraw-Hill Book Co., Inc., 1942. 368 pp., charts. $3.

Written primarily for the use of manufacturers engaged in war production, the book covers such subjects as wartime contract procedures, conversion to war production, planning and control of production, accounting, and labor management.

Productivity of labor in peace and war. By Solomon Fabricant. New York, National Bureau of Economic Research, Inc., 1942. 28 pp. (Occasional paper 7.)

Examines factors that affect output per man-hour during peace and war. It is pointed out that in war many circumstances tend to retard the rise in productivity of labor, and that the net result will depend on the steps that are taken to avert a decline.

Social Security

Extension of social-insurance coverage to agricultural workers, to the self-employed, and to domestic servants. Prepared by Julio Bustos A., Jose Vizcarra, Manuel de Viado G., for Inter-American Committee to Promote Social Security. Montreal, International Labor Office, 1942. 18 pp.

First item on agenda of Inter-American Conference on Social Security, held at Santiago de Chile, September 10–16, 1942.

Federal work, security, and relief programs. By Arthur E. Burns and Edward A. Williams. Washington, U. S. Work Projects Administration, Division of Research, 1941. xviii, 159 pp., chart, illus. (Research monograph XXIV.)

The work of relief agencies prior to 1933 and those set up since that time are described. There are chapters on the social-security program and on social insurance for railroad workers, and an account of general relief activities after the discontinuance of Federal Emergency Relief Administration grants at the close of 1935.

Guaranteed annual income and employment stabilization plan for State [Minnesota] highway employees. By Kenneth C. Pennebaker and Robert M. Hart. (In Public Personnel Review, Chicago, July 1942, pp. 177–189. $1.50.)

Account of the development, operation, and effects of the guaranteed annual-income and employment stabilization plan for State highway employees in Minnesota, preceded by brief descriptions of basic types of such plans—loan, guaranteed work and income, and flexible-wage.

Previsión social [Bolivia]. By José Mendez Bayá. (In Boletín del Ministerio del Trabajo, Salubridad y Previsión Social, La Paz, October 1941, pp. 126–144.)

Report on activities of the Bolivian Bureau of Social Welfare in connection with the housing of needy persons, rehabilitation of disabled persons, and aid to private social-assistance institutions.

La Caja de Seguro Obrero en sus dieciocho años de vida [Chile]. By Leonilda Barrancos. (In Acción Social, Caja de Seguro Obligatorio, Santiago de Chile, June 1942, pp. 4–19.)

This article on the Chilean Workers' Insurance Fund gives background information, an annotated list of modifications of the original law of 1924, and a financial report for the period 1935–41, by years.

Wages and Hours of Labor

On the wage structure of agriculture. By Harry Schwartz. (In Political Science Quarterly, New York, September 1942, pp. 411–425. $1.)

The article deals mainly with the relative importance of cash and other elements forming the total compensation of farm workers, and the basis of the cash payment, particularly as between time and piece rates, illustrated by statistics for different years.

Earnings in case-goods furniture industry. Washington, U. S. Bureau of Labor Statistics, 1942. 5 pp. (Serial No. R. 1468, reprint from July 1942 Monthly Labor Review.) Free.

Earnings in grain-mill products industries, 1941. By Frances Jones and Bernard L. Smith. Washington, U. S. Bureau of Labor Statistics, 1942. 39 pp. (Bull. No. 712.) 10 cents, Superintendent of Documents, Washington.

Newspaper minimum wage scales, hours, and working conditions of subordinate unions of International Printing Pressmen and Assistants' Union of North America, October 1, 1942. [Pressmen's Home, Tenn.], International Printing Pressmen and Assistants' Union, 1942. 64 pp.

Wartime developments in German wage policy. By René Livchen. (In International Labor Review, Montreal, August 1942, pp. 136–165. 60 cents.)

The study pertains chiefly to the wage policy in 1940 and 1941 but there is discussion of the measures taken from 1933 to the outbreak of the war, and the first war measures, and their effects.

Wartime Conditions and Policies

Economic problems of war. By George A. Steiner and others. New York, John Wiley & Sons, Inc., 1942. Various paging, bibliography, charts. $4.50.

Contains chapters on war organization in Great Britain, Germany, and Japan, as well as the United States, showing sharp contrasts in the status and role of labor. Chapters on the United States most directly related to labor are those on the labor market, personnel problems, housing, retailing, and consumer credit control and rationing. An appendix summarizes a case study of the impact of war on an economic area, the one chosen for study being Evansville, Ind.

Modern war, its economic and social aspects—a bibliography. By Albert T. Lauterbach. Princeton, N. J., Institute for Advanced Study, [1942]. Various paging; mimeographed.

Minority peoples in a nation at war. Edited by J. P. Shalloo and Donald Young. (In The Annals, American Academy of Political and Social Science, Philadelphia, Vol. 223, September 1942, pp. 1–198. Cloth, $2.50; paper $2, to nonmembers of Academy.)

The symposium includes two articles concerning employment of Negroes in war industries and one on aliens in war industries, in the United States.

Refugees and industry. By C. C. Salway. London, Williams & Norgate, Ltd., 1942. 23 pp., illus. 1s.

Account of the part played in British industry by refugees, in the past and at present.

War labor supply problems of Philadelphia and its environs. By Gladys L. Palmer. Philadelphia, University of Pennsylvania, Wharton School of Finance and Commerce, Industrial Research Department, 1942. 53 pp., charts. (Research report No. 5.) 50 cents.

Summarizes effects of defense and war-production programs on economy of Philadelphia and the surrounding counties and outlines labor-supply problems facing the region. Comparisons are made with conditions preceding the present war and with labor-market conditions during World War I.

Women in Industry

Calling all women. By Keith Ayling. New York, Harper & Bros., 1942. 208 pp. $2.

Designed to show civilian women where they can enroll for voluntary service in the Nation's victory effort, the book describes the many different jobs of the great national organizations, such as the Office of Civilian Defense, the Red Cross, the American Women's Volunteer Services, the United Service Organizations, and others, and also the more informal activities in which women can serve.

Employment of women in wartime. Washington, U. S. Bureau of Labor Statistics, 1942. 5 pp. (Serial No. R. 1479, reprint from September 1942 Monthly Labor Review.) Free.

Women at war. (In National Safety News, Chicago, October 1942, pp. 58, 59, 124–129. 40 cents.)

Discusses the employment of women in war production, and the measures which should be taken by employers to protect their health and safety.

Women's employment in aircraft assembly plants in 1942. By Ethel Erickson. Washington, U. S. Women's Bureau, 1942. 23 pp. (Bull. No. 192–1.) 10 cents, Superintendent of Documents, Washington.

Women's employment in artillery ammunition plants, 1942. By Martha J. Ziegler. Washington, U. S. Women's Bureau, 1942. 19 pp. (Bull. No. 192–2.) 5 cents, Superintendent of Documents, Washington.

Your questions as to women in war industries. Washington, U. S. Women's Bureau, 1942. 10 pp. (Bull. No. 194.) 5 cents, Superintendent of Documents, Washington.

Contains information on types of jobs, replacement of men by women, employment and unemployment, attitudes of employers, operation of labor laws, wages of men and women, training, and British experience.

General Reports

An index to indexes: A subject bibliography of published indexes. By Norma Olin Ireland. Boston, F. W. Faxon Co., 1942. 107 pp. (Useful reference series, No. 67.) $1.75.

Indexes on labor and related matters are included.

Labor: Child labor, women workers, employment, wages, workmen's insurance, and compensation. List of publications relating to above subjects for sale by Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. Washington, Government Printing Office, 1942. 88 pp. (Price list 33—27th ed.)

Memoria que presenta al Honorable Congreso Nacional del Ministro del Trabajo, Salubridad y Previsión Social [Bolivia], 1941. La Paz, Ministerio del Trabajo, Salubridad y Previsión Social, 1941. 232 pp., map, illus.

Report of Bolivian Minister of Labor, Health, and Social Welfare for year ending in August 1941, including information on activities of the Ministry in connection with social insurance, cooperatives, workers' housing, and nutrition, and on plans for the future. Also gives text of certain labor and social-welfare legislation adopted or in effect during the year, and of proposed legislation.

Sources of information on social and labor problems in Brazil. By Eugene D. Owen, U. S. Bureau of Labor Statistics. (In Pan American Union Bulletin, Washington, September 1942, pp. 493–497; November 1942, pp. 621–626. 15 cents each.)

The books and periodicals described were published during the period 1938 to the latter part of 1941.

War's effect on Chilean economy. (In Foreign Commerce Weekly, U. S. Department of Commerce, Washington, October 3, 1942, pp. 3–7, 40–43; illus. 10 cents, Superintendent of Documents, Washington.)

Includes information on wages, prices, cost of living, and social legislation in Chile.

Economía política y social de Colombia. By José María García. (In Anales de Economía y Estadística, Contraloría General de la República, Bogotá, May 5, 1942, pp. 13–52, and May 20, 1942, pp. 53–65; bibliography.)

Deals with social and economic problems in Colombia from colonial times, and gives statistics which include data on industrial distribution of the population; rates of pay, by industry; occupational associations; and cooperatives. Legislative and other means for improvement of the social and economic condition of the people are also discussed.

The people of India and their resources. By L. C. Mann. (In Ecomomic Record, National Industrial Conference Board, Inc., New York, August 1942, pp. 254–261; map.)

Review of economic and industrial conditions in India with special reference to the part the country can play in the war.

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